DUBLIN CITY COUNCIL WORK SESSION
Agenda
June 19, 2017

1. INTRODUCTION **6:00-6:05**
City Manager's Office

2. MOBILITY STUDY **6:05-6:50**
Planning and Nelson/Nygaard

The first phase of the Mobility Study presents a decision matrix of options for consideration by City Council. It is based on stakeholder engagement, demographics and a mobility toolkit (see Factbook). The second phase will focus on implementation strategies for specific options and the third phase will focus on implementation.

Questions for Council

1. Do the prioritization of transportation modes and infrastructure, described in the Decision Matrix align with the options Council would like studied in Phase 2?
2. Are there transportation modes or infrastructure not mentioned for which you would like additional study?
3. Does Council support the concept of a series of Mobility Hubs for future study and consideration as a long term strategy?
4. Do the Policy recommendations seem appropriate and feasible?
5. What level of support would Council like to give for public / private partnership opportunities?

3. DOWNTOWN DUBLIN PARKING MANAGEMENT STUDY **6:50-7:30**
Planning and Nelson/Nygaard

City staff is charged with undertaking a study of parking strategies for the Historic District and Bridge Park, given the amount of public and private parking that will be going on line in the near future. The draft Downtown Dublin Parking Management Toolkit includes high-level summaries of a comprehensive set of parking management tools. While these tools are generally applicable citywide, the immediate and short-term action items for Downtown Dublin will be presented at the work session for consideration by Council.

Questions for Council

1. Does the overall approach seem well suited to Dublin, including but not limited to Historic Dublin and Bridge Park?
2. Which specific tools and/or priority recommendations are appropriate?
3. Are there any other issues, concerns or strategies not addressed in the recommendations, particularly as presented in the background documents?
4. Does Council have any other concerns?

4. ADJOURNMENT **8 PM**

Mobility Study

1. Memo
2. Vision Statement and Action Plan Draft
3. Mobility Study Factbook Draft
4. Decision Matrix Draft
5. Mobility Toolkit Draft

City of Dublin

Office of the City Manager
5200 Emerald Parkway • Dublin, OH 43017-1090
Phone: 614.410.4400 • Fax: 614.410.4490

Memo

To: Members of Dublin City Council

From: Dana L. McDaniel, City Manager

Date: June 12, 2017

Initiated By: Terry Foegler, Strategic Initiatives Director
Donna Goss, Development Director
Megan O'Callaghan, Public Works Director
Vince Papsidero, FAICP, Planning Director
Devayani Puranik, Senior Planner

Re: Council Work Session – June 19, 2017 - Downtown Dublin Parking Study

Summary

This is an update for City Council to review the Downtown Dublin Parking Study toolkit and strategies draft and provide guidance for short-term and immediate action items for implementation of parking management strategies.

Background

Within more urban spaces, the management of on-street parking spaces is critical to the success of restaurants and convenience-oriented retail businesses to ensure frequent turnover that encourages ease of use by customers. Without a management system that includes features like parking fees and enforcement mechanisms, such spaces become occupied for extended periods of time by employees and residents, thereby discouraging the use of these "prime" spaces by customers. Encouraging use of nearby structured parking coming online in Downtown Dublin for long-term parking needs is another critical element to achieve balance of parking availability for residents, businesses, and visitors.

Planning staff presented an update of the on-street parking management policies and approaches being evaluated for Bridge Park at a Council work session last year. Among other issues, the presentation included a demonstration of parking payment kiosk technology (multi-space meter) to illustrate one of the options for managing the on-street parking inventory.

Although the capabilities of these systems are impressive, there is a risk that such hardware-based approaches may become quickly obsolete, and be less able to integrate fully with parking management systems that also address off-street surface and structured parking assets. It is increasingly evident that the use of purely smart phone (app)-based technologies is on a rapid ascent and evolving quickly. Leading analysts in the parking industry are concluding that the use of such mobile payment systems is growing rapidly and will likely be the norm in the not-too-distant future. Before Dublin makes a major investment in a hardware-based system that could quickly become obsolete (e.g. kiosks), a reassessment of the ever-changing parking management needs in the broader Downtown Dublin area is critical to implement a seamless parking management system.

To assist in this effort, staff has engaged national parking and mobility planning experts at

To assist in this effort, staff has engaged national parking and mobility planning experts at Nelson\Nygaard to develop a Parking Management Toolbox (Nelson\Nygaard led the earlier transportation planning for the Bridge Street District and is also assisting the City with our current Mobility Study). The recommended approach will be sufficiently robust to handle the eight parking structures, existing off-street public parking lots, a couple of hundred on-street parking spaces, and new parking demand generators (river parks, library, future private development).

Downtown Parking Management Study

Parking spaces are not all equal. Within any public parking inventory, there tends to be a core subset of spaces (typically well located curbside parking on primary retail streets) that attract far greater demand, far more consistently, than do most other spaces. Managing this disparity in market demand within public parking inventories is essential for ensuring that walkable urban centers like the Historic Dublin area and Bridge Park remain accessible to residents, employees, and customers/visitors. By contrast, reflexive assumptions that simply adding "more parking" will solve parking constraints often lead to extremely expensive investments in new infrastructure that provides little to no relief in the high-demand core. In fact, the promise of simply adding "more parking" can exacerbate this by bringing more drivers to the area -- drivers who, like those before them, soon find that the location where they really want to park are where it is most difficult to find an available space. Effective and comprehensive management of all available parking resources is the only means of providing meaningful improvement to such conditions. Dublin is becoming particularly well situated for such an approach, given that it can manage all on-street parking and owns or can influence substantial amounts of surface and structured parking facilities.

Historically, Dublin has been able to manage parking conditions in its primary historic village center with a thoughtful balance of well-maintained supply, including those made accessible through shared-parking agreements, and strategic regulations to maintain availability. To prepare for the intensity of parking activity and increased demand expected for Bridge Park and Historic Dublin, the recommendations include developing a comprehensive set of management tools that can guide management policies and actions as a new paradigm emerges in Downtown Dublin, and as parking and mobility conditions evolve throughout the community. The draft Toolbox defines optimal parking conditions, while outlining a range of policies, strategies and actions to consider for achieving and maintaining such conditions in Bridge Park, Historic Dublin and future growth areas within the Bridge Street District.

Parking Management Toolkit- Strategies

The Toolbox document is developed based on the recommendations from previous studies, field observations, and input received from the focus group interviews with stakeholders. The document is organized into the following areas of parking management:

- **Shift Demand** to distribute parking more evening across all parking options.
- **Reduce Demand** to minimize future expansions of parking infrastructure and to balance modes of access in favor of vibrant, walkable urban environments.
- **Expand Capacities** to increase the value provided by existing parking supplies.
- **Expand Supplies** as shared parking, rather than private/reserved parking facilities.
- **Manage Event Demand** to ease constraints on "everyday" parking resources during intense-demand conditions.

- **Deploy Technology** for state-of-the-practice efficiencies and customer.
- **Coordinate Management** to optimize system-wide management and synergies.
- **Implementation Guide** listing priority strategies and action items.

This Toolbox is designed to be comprehensive, allowing it to guide parking management in addressing issues and opportunities that are present today, those that are expected in the near future, and those that arise as conditions change over the medium- and long-term.

A set of immediate and short-term strategies that make use of the Toolbox for a prioritized set of actionable improvement opportunities is listed below. Detailed action items and immediate steps for these strategies are listed in the Downtown Dublin Parking Management Toolbox and Implementation Guide - DRAFT report.

- Established Performance-Based Management Policy
- Establish Program Funding structure
- Monitor Performance
- Establish pricing for on-street parking in Bridge Park
- Develop Commuter Benefit strategies
- Develop an Events Management toolkit
- Develop flexible curbspace programming
- Develop Communications Plan
- Develop a Zoning strategy for Park Once Districts
- Deploy Technologies
- Adopt Ordinances

Staff will also provide information regarding immediate near-term actions that are needed to help facilitate appropriate turnover of on-street parking demand in the area of Bridge Park where restaurants and other destinations will soon be opening, and where residential tenants and others are quickly growing competing demands for the on-street parking resources. Following Council direction, staff will work with Nelson Nygaard to develop an Implementation Guide for these broader recommendations, including key implementation steps, strategic partners, performance measures, data needs, and cost implications.

Questions

The presentation and background materials, and the Toolbox itself, are high-level summaries of a comprehensive set of management tools. This will allow the tools to remain broadly-applicable resources, with immediate and short-term action items to be defined more specifically according to current and near-term improvement opportunities.

1. Does the overall approach seem well suited to Dublin, including but not limited to Historic Dublin and Bridge Park?
2. Which specific tools and/or priority recommendations are appropriate?
3. Are there any other issues, concerns or strategies not addressed in the recommendations, particularly as presented in the background documents?
4. Does Council have any other concerns?

Recommendation

Information only.

Attachments

Downtown Dublin Parking Management Existing Conditions Report- DRAFT
Downtown Dublin Parking Management Best Practices- DRAFT
Downtown Dublin Parking Management Toolbox and Implementation Guide- DRAFT
Downtown Dublin Parking Management Organization Appendix Memo- DRAFT

Dublin Mobility Study

Visioning Workshop Summary & Vision Statement

City of Dublin

NELSON NYGAARD

nbbj

April 2017

Table of Contents

Table of Figures

WORKSHOP SUMMARY

The Dublin Mobility Study is intended to develop a shared transportation vision that will guide policy, design, and implementation strategies for multimodal mobility improvements throughout the City of Dublin. Currently, the majority of residents and employees in Dublin rely on personal vehicles for all their mobility needs. However, there are growing opportunities for multimodal improvements in Dublin.

The mixed-use development of the Bridge Street District, a new public library, other improvements in Historic Dublin, as well as the emerging “connected vehicles” corridor on Route 33, place additional demands on the local roadway network while also paving the way for an expanded range of alternative mobility choices. The City Council has identified the need for enhanced multimodal transportation options in order to support their vision of being a “Vibrant, Innovative, and Engaged Community.” The Council seeks a transportation vision that addresses changing patterns of land use development and mobility while addressing specific stakeholder goals, policy updates, and actionable strategies for development standards and infrastructure facilities.

On February 21st and 22nd, 2017, the City of Dublin, Nelson\Nygaard, and NBBJ Architects hosted a two-day Visioning Workshop to develop a vision for the future of mobility in Dublin, OH. The workshop engaged over 40 participants, selected to represent a diverse range of community and mobility stakeholders, including but not limited to "subject-area experts" with in-depth knowledge of specific mobility conditions and opportunities. This body, as well as several invitees who were unable to participate in the workshop, will form a Working Group for the broader, multi-phase Mobility Study.

The goal of the Vision Workshop was to engage with key stakeholders on Dublin's mobility challenges, assets, and opportunities and incorporate these perspectives into the City's shared transportation vision. On Tuesday, February 21st, participants were invited to hear a series of "table-setting" presentations. These presentations provided an overview of key mobility conditions in Dublin today, as well as the transformative opportunities presented by the significant levels of technological innovation reshaping mobility across the globe. The Smart Columbus and the Route 33 Connected Vehicles project presentations made clear how Dublin's local and regional contexts are at the forefront of promising mobility opportunities.

The next day's workshop focused on a series of facilitated group discussions designed to help define Dublin's current and expected transportation challenges, assets, and opportunities. The following is an overview of those discussions, highlighting key themes and perspectives.

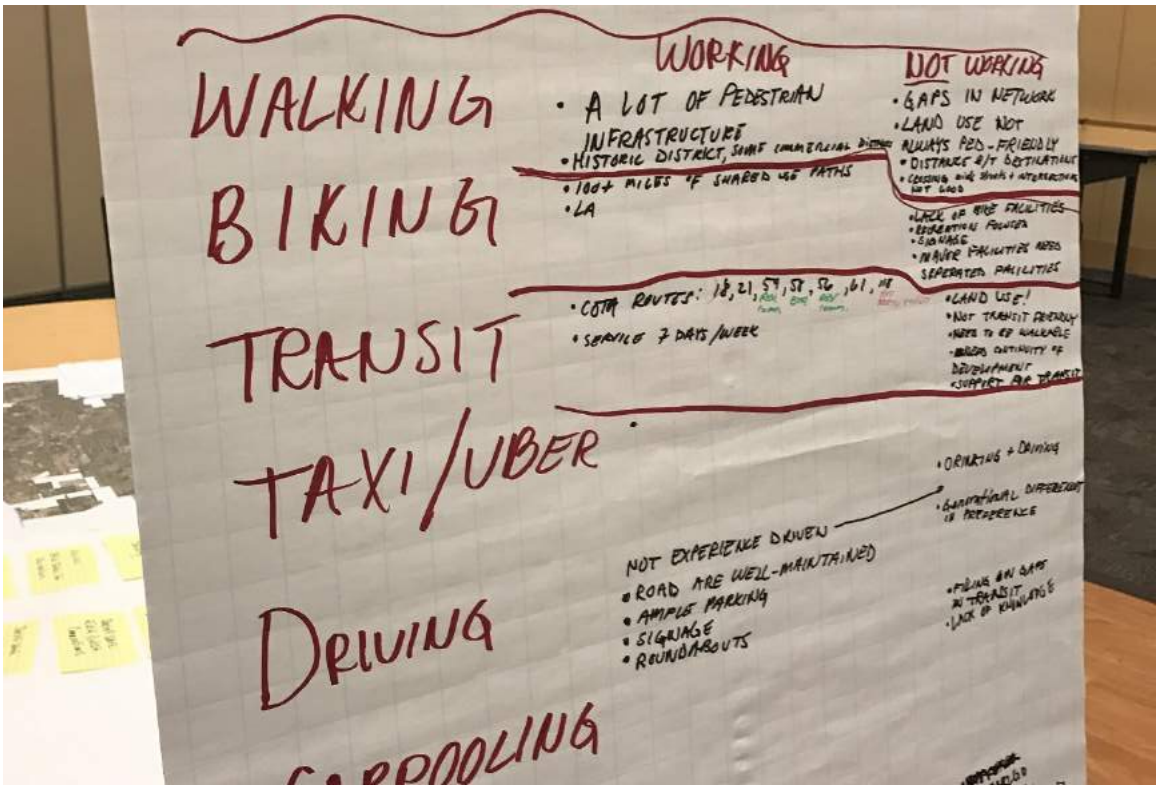
TABLE-DISCUSSION FORMAT

The primary objective for the workshop was to glean stakeholder knowledge related to mobility both broadly (e.g. transit service is limited in most of Dublin) and specifically (e.g. the intersection of High and Bridge Streets needs a pedestrian countdown timer). Discussions were organized around eight tables, each table was assigned one of the draft Mobility Objectives from the study, which are as follows:

1. **Support economic development:**
   Keep Dublin competitive as live, work, play preferences evolve. Expand the range of transportation choices available to employers/employees; facilitate access to jobs/workforce talent located in and outside of Dublin.
2. **Promote equitable access to mobility**:
   ADA, Access to jobs, Aging in Place, Safe Routes to Schools, etc.
3. **Expand multimodal options**:
   Provide safe and effective walking, cycling and other mulitmodal options in more places across Dublin.
4. **Improve public health**:
   Reduce emissions, increase walking and cycling, reduce social isolation, etc.
5. **Preserve our environs by focusing future growth**:
   Focus new growth in walkable, mixed-use centers, which will preserve low-density lifestyles and protect the natural environment elsewhere.

For the morning session, participants were assigned to specific tables corresponding to one of the five Mobility Objectives above, to ensure diversity of stakeholder affiliations and backgrounds within table discussions. This assignment encouraged participants to think about mobility through a specific "lens", and one that might not match their everyday area of focus. During the afternoon, participants were directed to choose their table according to which Mobility Objective most resonated with their experience, concerns, hopes, suggestions, ideas, etc.

DISCUSSION SUMMARY



The following is a summary of key input themes, ideas, and areas of consensus.

What's Working & What's Not?

In the morning session, participants discussed what was working and what was not working with respect to the various transportation modes in Dublin.

Common Themes

Working

- Recreational Biking - 100+ miles of shared-use paths
- Lots of pedestrian infrastructure and sidewalks in good condition, particularly in residential areas
- Driving is easy and efficient, and drivers are well-served by existing roadways
- Roadway signage is clear and easy to follow, particularly near several newly installed roundabouts
- Ample parking
- Tech-savvy local population

- Bridge Park mixed-use development is poised to have a positive and transformative impact on Dublin's "downtown".

Not Working

- Biking – biking is recreation-focused not destination/transportation-focused, gaps in the network, few roadways have in-road bike infrastructure, sharrows are ineffective
- Roadway network – Wide streets and intersections, with long crossing distances, are not pedestrian- or bike-friendly
- Transit – Riding COTA buses still carries some social stigma for many participants
- Pedestrian – Land use not always pedestrian-friendly, with segregated land use patterns causing long distances between destinations, gaps in the network
- Driving –Younger people are less interested in driving than older generations, but there are few alternative mobility choices. Likewise, seniors aging in place face limited mobility options as they become unable to drive.

Visioning Exercise

After lunch, participants discussed the future of mobility, beginning by completing the following sentence with respect to improving Dublin's transportation ecosystem:
"For Dublin's mobility system to make Dublin great, it needs to..."

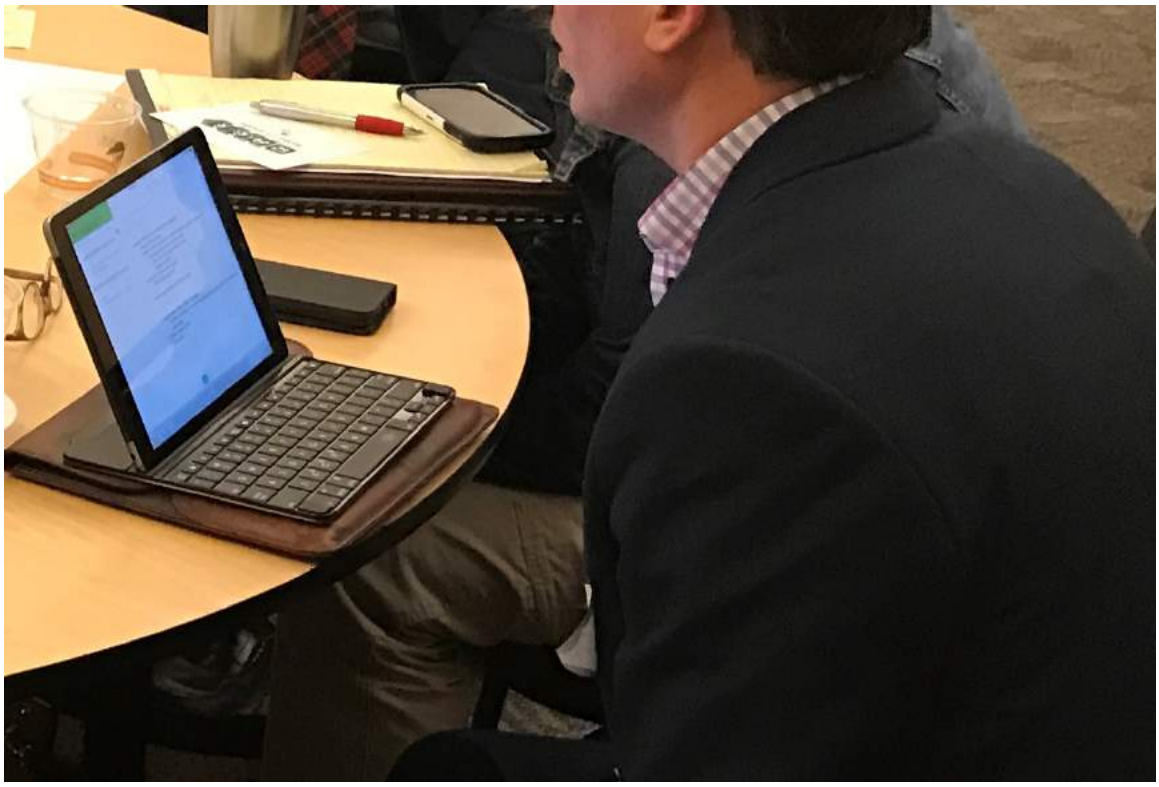
Top Themes

- Develop a circulator ("D" bus, shuttle, or trolley) service
- Enhance connectivity
- Embrace people-oriented, inclusive transportation for all ages, places
- Establish Bike share
- Develop Mobility Hubs
- Bring car share (e.g. Car2Go) to Dublin
- Do more education/outreach on sustainable growth, mobility
- Provide on-demand options supported by mobile apps
- Focus on public/private partnership opportunities
- Provide more and better multimodal options
- Prioritize safety enhancements at intersections, crossings
- Address intrinsic cycling barriers, like trip distances and weather (e-bikes, bike-share)
- Focus on first/last mile connections, related to transit as well as cycling networks
- Mobility as a Service (accessing mobility through public or private service-providers, rather than via personal vehicles)

The most commonly referenced mobility themes are shown in in the following "word cloud" graphic, in which the size of each word is proportional to the frequency of its being mentioned in recorded notes by workshop participants.

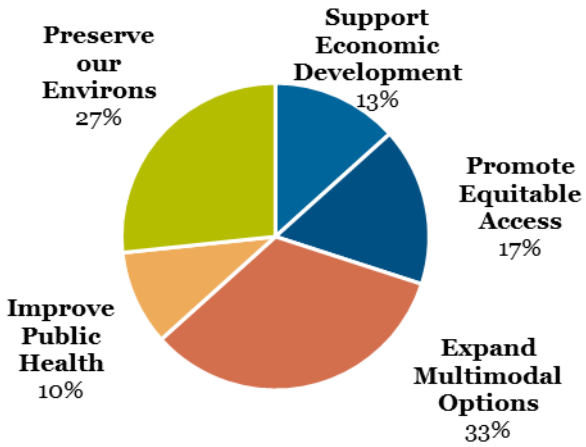
Most Used Words from Visioning Discussions

ONLINE SURVEY

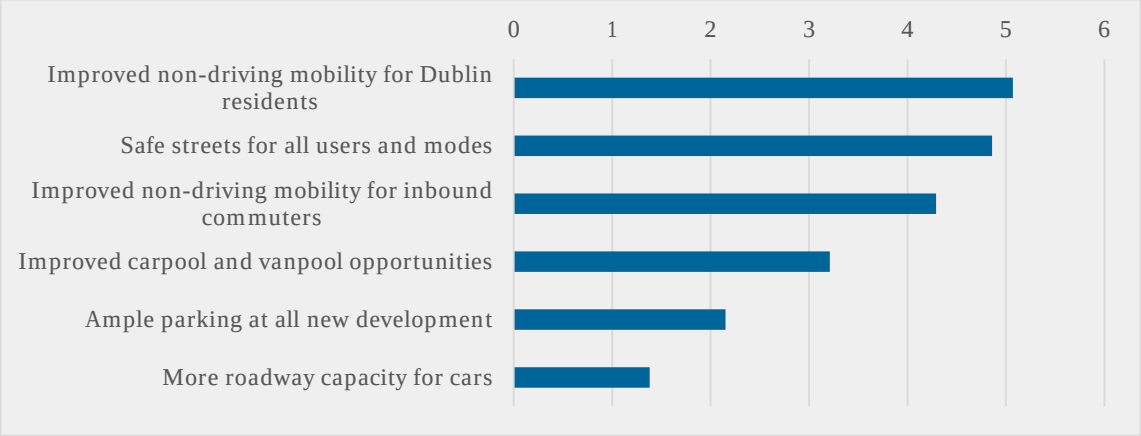


Workshop participants also completed an online survey (now available on the project website) about modal priorities in Dublin. After the workshop, participants were encouraged to share the survey with others in the community and on social media. Responses were collected during the workshop, with the results summarized below. In the charts below, modal priorities are ranked on a scale of "1" to "6," where 1 is least important and 6 is most important.

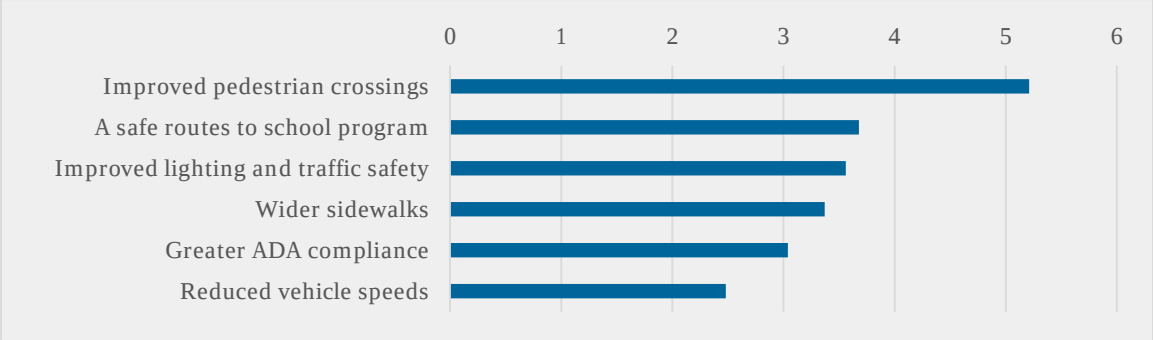
Which of the five Mobility Objectives is most important to you?



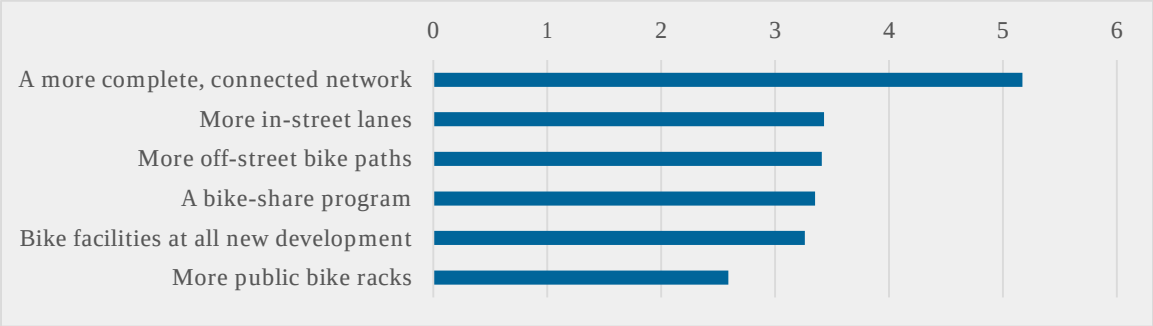
Ranking Multimodal Priorities



Ranking Pedestrian Priorities



Ranking Bicycling Priorities



Ranking Transit Priorities

Ranking Parking Priorities

WORKSHOP THEMES FOR ACTION

While an unlimited number of initiatives could be inspired from workshop responses, several themes recurred throughout participant conversations, highlighting opportunities for more dedicated attention and intervention on the part of the City. Key Action Items are identified below coming from feedback gathered at the workshop and through the online survey. A full listing of each of these themes and corresponding project opportunities is shown in the Mobility Toolkit and Decision Matrix.

Broad Themes

Consolidate Transportation Information

Workshop participants noted that under existing conditions, information about various transportation options is scattered and difficult to access. More people might consider non-driving travel options if these options had a consolidated point of information, such as a web portal or mobile app, synchronizing existing mobility information on a single platform. Comparable “clearinghouse” websites include parking rates and permit information, links to local transportation demand management (TDM) programs, circulator/shuttle information, bike-parking locations, events/programs, and links to service providers, such as car-share, bike-share, bike repairs, and the like.

A higher-level site might include any of the following.

- Provide multimodal trip planning assistance, with bike and pedestrian-oriented maps and wayfinding
- Real-time transit information displays using COTA's existing GTFS feed and the "Transit" app[1]
- Links to local COTA paratransit or other human-services transportation

Build Partnerships/Facilitate Relationships with Emerging Mobility Resources

An array of emerging mobility services, such as ride-hailing services (e.g. Uber and Lyft) and on-demand transit operators (e.g. Bridj, Chariot) are exploring new markets that include subsidized rides to make first/last mile connections to transit, healthcare services, large employers, special events, and other opportunities. Some partnerships involve public sector subsidy/oversight of private emerging mobility services, while others involve public sector-operated "flex bus" service using the routing/dispatching algorithms of a private company. In the near-term, the City can explore potential partnerships with emerging mobility stakeholders to meet its mobility objectives. Key concerns in the negotiation process may include:

- Coordinate partnerships with COTA, which is exploring partnership options
- Prioritize a "shared ride" model (e.g. UberPool, LyftLine), instead of single-passenger rides, that more closely fits the mission of public transit
- Establish terms of service (e.g. hours of operation, rider subsidies allowed, Title VI obligations, alternatives for users without credit cards/smartphones, ADA compliance)

Identify First-Mile/Last-Mile Strategies

Identify, overlay, and track modal and intermodal network gaps by creating a "Gap Map" for the Dublin Mobility FactBook and Mobility Study webpage. This Map would overlay modal networks with major activity centers and allow residents, employees, and other members of the community to make interactive suggestions on how to fill these gaps. These solutions might include upgraded sidewalks, improved in-road bike lanes, or shuttle/circulator service, to name a few.

Specific Opportunities

Explore Circulator Study/On- Demand Transit Feasibility

Workshop participants agreed that many of the benefits of transit could be realized through a circulator that connects to key destinations and activity centers, as well as to COTA service. Several stakeholders proposed circulators that were visitor-oriented, with service designed around the city's 17 hotels, located primarily within the Bridge Street corridor and near the Dublin campus of Ohio University. Others suggested a cost-savings opportunity through

[1] COTA's real-time arrival information launched on the Transit app in May, 2016.

operating dual-purpose circulators/shuttles that could be used by schoolchildren during school pickup/dropoff hours and by general visitors at other times.. A circulator study could focus on the benefits of a new circulator while digging into the reasons as to why previous circulators in the city have failed.

Help Employers Develop TDM Strategies & Programs

Stakeholders shared an understanding that local mobility options are a key factor in the recruitment and retention of talented employees to Dublin. Top-tier employers are increasingly offering a wider range of multimodal transportation benefits beyond the typical free parking space – subsidized transit passes, bike-share programs, and circulators/shuttles, among others – to recruit talented employees by facilitating sustainable commute options. Likewise, long-term trends in the commercial real estate market show that access to talent, particularly in dense job centers accessible by high-capacity transit, is among employers' top concerns in choosing a location to set up shop.

A common theme workshop participants expressed was that local employers in Dublin, particularly the largest employers, could be strong partners in expanding sustainable-mobility options for their employees. A common barrier is a lack of information on non-driving mobility options, and a lack of means to communicate that information to employees. The City could be a conduit for such information, and a pending statewide transportation demand management (TDM) platform[2] may be a particularly useful tool for doing so. One challenge to commuter transportation is the limited overall awareness of the mobility needs of employees in Dublin. A City-sponsored employee transportation survey, distributed among Dublin's larger employers, would be a useful first step to highlight gaps in employee mobility and develop potential solutions.

Enact a Complete Streets Policy

Many stakeholders noted that Dublin's existing street network does not adequately meet the mobility needs of all road users. As a result, many people who would otherwise travel on foot, by bike, or other non-driving modes choose to drive because of safety concerns or challenges making first/last-mile connections. A Complete Streets policy is an official City ordinance establishing that all roadway projects must seek design opportunities to accommodate all users, regardless of their mode of travel. While many roadway projects in Dublin already make accommodations for non-driving modes, a Complete Streets policy provides a legal framework for a project's stakeholders to ensure the needs of all road users are considered.

[2] http://morpc.org/Assets/MORPC/files/000RFP%20DRAFT%20-%20Consultant%20RFP%20FINAL.pdf

Explore Bike-Share Options

Stakeholders expressed interest in an expansion of the CoGo bike share system in Columbus to serve Dublin. Bike share is proving to be a viable mobility strategy in a larger range of communities than previously thought, as new types of operations and funding models emerge.

Engage Car-Share Operators

Many stakeholders expressed interest in attracting a car share operator to Dublin to encourage car-free or "car-lite" lifestyles in the Historic Dublin or Bridge Park districts. Car2Go operates a one-way car share program in Columbus and select suburban centers, while Zipcar operates round-trip car share at John Glenn Columbus International Airport and the Ohio State University.

Review Citywide Land Use and Site Planning Policies

Workshop stakeholders noted that City land use and transportation policies may not be in sync with its broader mobility objectives. Land use policies in some areas may require buildings to be set back far from the street and surrounded by surface parking lots, inhibiting the flow of pedestrians. Traffic engineering requirements, likewise, may require the City to build streets and intersections that are unsafe for walking and biking, with long crossing distances and high vehicle speeds. Stakeholders also expressed interest in stronger City ordinances to support infill and transit-oriented development, including developing appropriate parking and pedestrian access standards for walkable, mixed-use centers.

Prepare for Mobility as a Service

Workshop participants took interest in the emerging concept of Mobility as a Service (MaaS), defined as a digital platform used to source and manage the provision of transportation services that meet a customer's unique mobility needs. Stakeholders argued that the City should take the lead in developing a citywide MaaS mobile app platform that includes all mobility services available in Dublin. As of 2017, several MaaS pilots are underway around the world, though few include more than a few hundred participants. MaaS platforms generally include a multimodal trip planning service, trip booking, fare payment, and customized "mobility packages" that users can select according to their preferences (e.g. cost savings, time savings, calorie expenditure, or carbon emissions).

WORKSHOP PARTICIPANTS

The City would like to thank the following participants who provided several hours of their time, and offered invaluable insights and ideas in developing a guiding vision for the Dublin Mobility Study.

Name	Representing
Alison Srail	Crawford Hoying
Amy Kramb	East Dublin Civic Association
Anna Sommers	IGS
Brian Suiter	Kaufman Development
Catherine Guirves	Yay Bikes!
Chad Gibson	Upper Arlington Planning
Christine Gawronski	Community Services Advisory Commission
Danny Freudinger	Honda/OSU Partnership
Devayani Puranik	Planning Department
Eliza Thrush	City of Columbus
Elizabeth Diamond	Student leaders
Grant Southwood	Ohio State University
Janet Cooper	Dublin Arts Council

Name	Representing
Jason Sudy	OHM Advisors
Jayashree Ramanath	Ohio State University
Jeannie Willis	Engineering Department
Jeff Tyler	Building Department
JM Rayburn	Planning Department
Joanne Shelly	Planning Department
Joe Florian	Bicycle Ambassador
Joe Sullivan	Sullivan Bruck Architecture
Lori Burchett	Planning Department
Marino Colatruglio	Cardinal Health
Mark Dudgeon	Columbus State
Mary Pierce	Muirfield Village
Mary Turner	Planning Department
Maryanne France	MORPC Planning
Matthew Adams	DTI Creative
Melissa Bogner	Park Place/Post Preserve
Mia Bovska	Student leaders
Mike McCann	Central Ohio Transit Authority
Nick Plouck	City Manager's Office
Nicole Leavitt	Student leaders
Paul Carlson	City of Columbus
Rob Kopp	Metro Data Center
Scott Diring	Visitor's Bureau
Sgt Renae Rice	Dublin Police Department
Steve Stidhiem	Planning & Zoning
Thomas Raabe	Ohio University
Tina Waskiewicz	Engineering Department
Tyler Ford	Van Trust Real Estate
Umit Ozguner	Ohio State University
Vince Papsidero	Planning Department
Vanessa Cummings	Columbus State University

VISION STATEMENT

One of the primary objectives of the Visioning Workshop was to develop a Vision Statement for the Mobility Study, based on input received from the stakeholder Working Group. Following is a series of potential Vision Statements for the overall study, and in support of the study's adopted objectives.

PRIMARY VISION STATEMENT

For consideration:

- Exceed expectations in providing mobility choice and excellence.
- To be a city of strong, growing, prosperous and inclusive communities supported by excellent mobility options that bolster a thriving economy, accommodate new and established populations, facilitate healthier lifestyles, encourage social connection, and allow all Dubliners to fulfill their potential.
- A diverse range of viable mobility options are available to meet the needs and preferences of our diverse community, providing mobility independence, improving air quality, enriching public life and neighborhood cohesion, and enhancing the overall quality of life.

OBJECTIVE-BASED VISION STATMENTS

For consideration:

Support Economic Development

Connections to walkable, mixed-use centers with a range of transportation options will create vital employment districts throughout Dublin, and facilitate expanded access to jobs and workforce talent in Dublin and throughout the Columbus Region.

Promote Equitable Access

Access to goods, services, jobs and recreation will be convenient for all residents and visitors regardless of socio-economic status, physical ability, or age.

Expand Multimodal Options

A wide range of efficient, accessible, and sustainable transportation choices will be available, including options to access goods and services without travel.

Improve Public Health

Dublin will be widely known as a place where getting around without a car is an easy, attractive, and popular lifestyle choice regardless of one's age, ability, or level of physical fitness.

Focus Growth

Population growth is concentrated in walkable, transit-accessible, mixed-use districts, as new residents and employees gravitate toward car-independent lifestyles and commutes.

MOBILITY TOOLKIT AND DECISION MATRIX

The focus of the next Mobility Study phase will be to build upon the Vision Statement, to develop a Mobility Toolkit and Decision Matrix, which will identify and prioritize a set of recommended actions to put vision into practice. Working drafts of the Toolkit and the Decision Matrix are appended to this document. Below is an overview of both.

MOBILITY TOOLKIT

Modal Toolkits

Modal Toolkits to Organize Potential Strategies

Develop citywide policies for multimodal access to new developments			
Encourage infill development and TOD through zoning policies		Updated approaches to design review, site planning, parking requirements	
Enhance regional connections with Columbus			
Affordable housing			
Smart growth - focus growth in denser, mixed-use centers like Bridge Park			
Develop public-realm plans		Develop a Parks and Public Realm plan to prioritize placemaking	
Develop public-realm plans		Develop a series of neighborhood-specific public realm plans	
Identify "Infill Nodes" where new walkable, mixed-use, higher density development is desired	Identifying where such growth is sought can clarify that most of Dublin is not targeted for transformative land-use change	Map these redevelopment nodes, based on current land use characteristics, propensity for redevelopment, and neighborhood and regional access	Update Land Use and Parking Requirement zoning codes
Promote Economic Growth to strengthen and expand Dublin's			

Transit Strategies | Cycling Strategies | Walking Strategies | Streets_Parking Strategies | Multimodal Strategies | Land Use_Dev Strategi ...

The Mobility Toolkit comprises modal toolkits, outlining strategies for the following mobility elements.

- Transit
- Cycling
- Walking
- Streets & Parking
- Multimodal Coordination
- Land use and development opportunities to support the Mobility Vision.

Implementation Actions

Modal Strategies Explained

Strategy	Details	Implementation Actions	First Steps	More Information	
Identify "Transit Priority" Corridors	Identify corridors that would best serve high-functioning local transit service to key Dublin activity centers and popultions.	Add to Gap Map			
Develop Circulator Strategy	Explore pilot options	Identify potential private employer/vendor partners	Identify sub-markets to help define likely routes and other characteristics		
Explore partnerships with on-demand transit providers	Private services are partnering with cities and transit agencies, and some offer a "platform" for communities to create their own services	Coordinate with COTA, which is exploring partnership options	Explore a partnership modeled after KCATA's Ride KC: Bridj partership in Kansas City, Mo	https://platform.ridewithvia.com/	http://www.citylab.com/cityfixer/2016/02/kansas-city-bridj-microtransit/462615/
Explore partnerships with TNCs	Uber and Lyft are exploring new markets that include subsidized rides to/from transit access points, healthcare services, large employers, etc.	Coordinate with COTA, which is exploring partnership options	Prioritize shared ride model (UberPool, LyftLine), especially for late-shift workers or low-income people poorly served by existing transit service (see PSTA's TD Late Shift pilot)	http://www.bizjournals.com/columbus/news/2017/02/24/cota-could-partner-with-uber-lyft-to-help-close.html	http://www.masstransitmag.com/press_release/12244582/lyft-partners-with-atc-for-on-demand-transportation
Real-time transit information	Publish real-time COTA arrivals on digital displays at bus stops, major destinations	COTA already publishes GTFS feed through Transit App. Need to publish at digital displays at bus stops	Work with display screen vendors (e.g. Roadify, TransitScreen) to implement kiosks or displays showing real-time arrivals	http://www.citylab.com/commute/2016/12/a-smarter-way-to-visualize-zillions-of-travel-options/511322/	http://www.pressherald.com/2016/06/22/maine-voices-bus-information-at-a-glance-would-benefit-business-environment-health/
Autonomous transit vehicles	Connected, electric, on-demand transit vehicles - part of Smart Columbus plan	Identify potential pilot partnerships and funding options		http://www.firsttransit.com/about-us/news/news-details/2016/12/06/first-transit-announces-first-autonomous-passenger-shuttle-pilot-in-north-america-with-easymile	http://www.govtech.com/fs/Rochester-Minn-Pilots-Driverless-Shuttle-Program.html
Develop "next gen" paratransit strategies	Explore partnerships with TNCs as complement to existing COTA paratransit service; investigate autonomous paratransit options			http://news.wgbh.org/2016/09/19/politics-government/mbta-partners-uber-and-lyft-paratransit-ride-pilot-program	
Develop local COTA service options	Identify potential for "right fit" local-service options to expand COTA access	Focus on new, mixed-use destinations like Bridge Park	Initiate talks with COTA		
Explore options for consolidated shuttle/circulator service for	Implement on larger arterials (e.g. Sawmill Road, Frantz Road, Post Road)	Seek partnerships with local hotels (17 in Dublin) to develop service that could be transit	Discuss opportunities with Dublin Visitor's bureau		

The modal toolkits function as holding centers for potential implementation actions, including columns for providing details on each, as listed below.

- Strategies – Broad descriptor for a guiding strategy behind implementation actions
- Details – Brief description of the strategy, its intent and/or rationale
- Implementation Actions – Broad measures for actualizing the strategy
- First Steps – How implementation might begin
- More Information – Web-links to examples or explanatory materials

DECISION MATRIX

Each of the modal toolkits is paired with a decision matrix, designed to evaluate and prioritize a select set of strategies, from one or more modal toolkits, to guide decision-making.

Selected Strategies Are Scored for Priority-Setting

			Principles Support Rating						Achievability Rating							
Action Item	City Lead	Key Partners	Economic Development	Equitable Access	Multimodal Options	Public Health	Focused Growth	Total	Cost Viability	Internal Support	Key Partner Support	Decision-Maker/Community Support	Legal Authority	Total	Importance Score	Achievability Score
								0						0	0	0
								0						0	0	0
								0						0	0	0
								0						0	0	0
								0						0	0	0
								0						0	0	0
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								0						0	0	0
								0						0	0	0
								0						0	0	0
								0						0	0	0
								0						0	0	0
								0						0	0	0
								0						0	0	0

Decision-matrix prioritization is based on staff (and stakeholder) input on each strategy's relative *importance* to achieving each of the five, designated Mobility Study objectives, as well as its achievability (the relative likelihood of effective implementation) as described below.

Importance

Each selected toolkit strategy is rated according to its potential to serve each of the five Mobility Study objectives. The daft matrix provides a non-weighted tally for this score, based on entered ratings, but the tally could be weighted if the City chooses to make the five objectives hierarchical.

Achievability

Similarly, each selected toolkit strategy is rated, based on an assessment of its achievability, according to the following.

- Cost Viability – How easy it will be to fund effective implementation, including an assessment of outside funding opportunities
- Internal Support – Staff enthusiasm, staff enthusiasm, staff resources, organizational preparedness, etc.
- Key Partner Support – The willingness of any key partners to provide effective support, as necessary, to achieve the strategic aims. Full score for any actions that do not significantly depend upon partners.
- Decision-Maker/Community Support – The likelihood of gaining popular support, and/or any necessary approval/s from decision-makers.
- Legal Authority – The City has, or can secure, necessary authority to implement, including the viability of any necessary ordinances/amendments.

Final Score

The result will be a bifurcated score for each selected action, providing a means of quickly scanning for the following actions to prioritize.

- Obvious Top Priorities – Actions with high Importance/Achievability scores
- Hard, but Worth It – Actions that are important enough to pursue, despite significant implementation barriers
- Low Hanging Fruit - Actions that, while perhaps not transformative in importance, face minimal obstacles to successful implementation.

City of Dublin
OHIO, USA

MOBILITY STUDY

FACTBOOK

2017

EVERYTHING GROWS HERE.

MOBILITY STUDY

FACTBOOK

TABLE OF CONTENTS

MOBILITY STUDY

PARTICIPATION

STAKEHOLDERS

BUSINESSES
NBBJ
Nelson-Nygaard
Crawford-Hoying
Kaufman Development
CASTO
Cardinal Health
Fuse
Smiths Medical
United Methodist Church Hospital
Technology Solutions International
The Wendy's Company
IGS
Careworks
A Grade Ahead
Via-Quest
Dublin Entrepreneurial Center
My Health Quoter
Blue Stone Marketing
DTI Creative
Metro Data Center
Elemental FT
Ability Professional
Marriott Northwest
OCLC
Van Trust Real Estate
CBRE
Dublin Methodist Hospital
Colliers International
The Windsor Companies
Continental Realty
Jonathan Barnes Association
Moody Nolan
OHM
Sullivan Bruck Architecture
Urban Decision Group
Car2Go
Honda

PUBLIC ENTITIES
City of Dublin Dept. of Development
Dublin Arts Council
City of Dublin Police Department
Mid-Ohio Regional Planning Commission
Columbus Healthy Places
Columbus Bike Share
Columbus Mobility Group
Upper Arlington Planning Division
Central Ohio Transit Authority
The Ohio State University
Ohio University
Columbus Metropolitan Library
Columbus Metro Parks
Dublin City Schools
Dublin Student Leaders
Columbus State Community College
Community Services Advisory Committee
Planning and Zoning Commission
Architectural Review Board

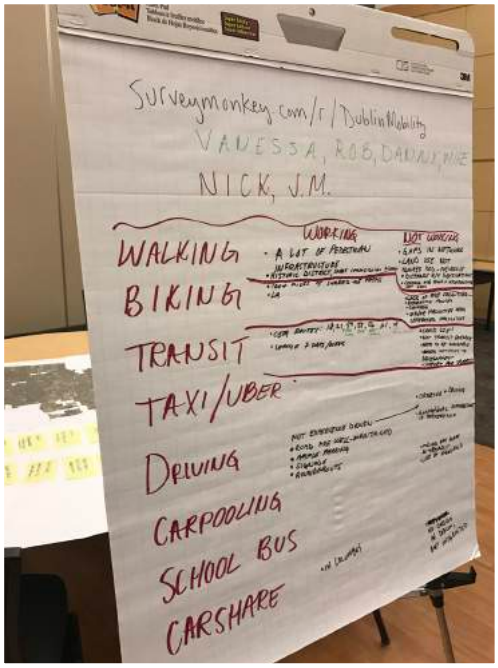
CITIZEN GROUPS
Historic Dublin Business Association
Dublin Vistor's Bureau
Park Place / Post Reserve HOA
East Dublin civic Association
Wellington Place HOA
Willow grove Condo Association
Belvedere HOA
Shannon Glen HOA
Trinity Park HOA
Greystone Mews HOA
Avondale
Disability Advocates
Columbus Dream Homes
Seniors Group
Yay! Bikes

MOBILITY STUDY

PARTICIPATION

ATTENDANCE

BUSINESSES: 18 Representatives
PUBLIC ENTITIES: 34 Representatives
CITIZEN GROUPS: 4 Representatives



WORKSHOP

PARTICIPATION

FOCUS FORUMS

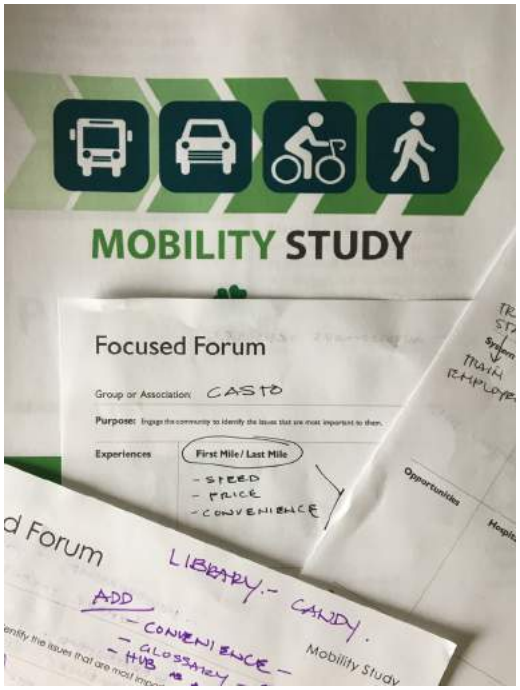
Key Word	Convenience	Quality of life	Civil facility design	Cultural habits	Iolation	ADA compatible	schedule	schedule - on demand	data	market share	parking - demand	parking - charging	local trips	regional trips	safety	cost of service	proximity	education	compatibility	wayfinding	congestions	infrastructure cost
Attendance	10	7	10	3	5	6	7	6	4	1	6	3	5	9	3	7	6	3	10	7	2	1
Visitors																						
Transit Service Provider										x				x	x	x		x	x	x	x	x
Senior	x	x	x	x	x	x	x	x		x			x	x	x	x	x		x	x		
Retired	x	x	x	x	x	x	x	x		x			x		x	x	x	x	x	x		
English as a Second Language	x	x	x	x	x	x	x						x		x	x	x	x	x	x		
Self Employed	x			x	x		x	x						x		x		x	x	x	x	
Service	x						x			x			x	x		x	x	x	x	x	x	
Professor	x			x			x	x		x		x		x			x	x	x	x	x	x
Parent			x				x		x						x			x	x	x	x	x
High School	x	x	x			x	x						x		x	x	x	x	x	x		

MOBILITY STUDY

PARTICIPATION

GROUPS

- Homeowners Association
- Ability Professionals
- Dublin Entrepreneur Center
- Kaufman Development
- Marriot Northwest
- COTA
- Columbus Metropolitan Library
- Ohio Health Methodist Hospital
- MORPC
- CASTO
- Avondale Senior Center



FOCUS FORUMS

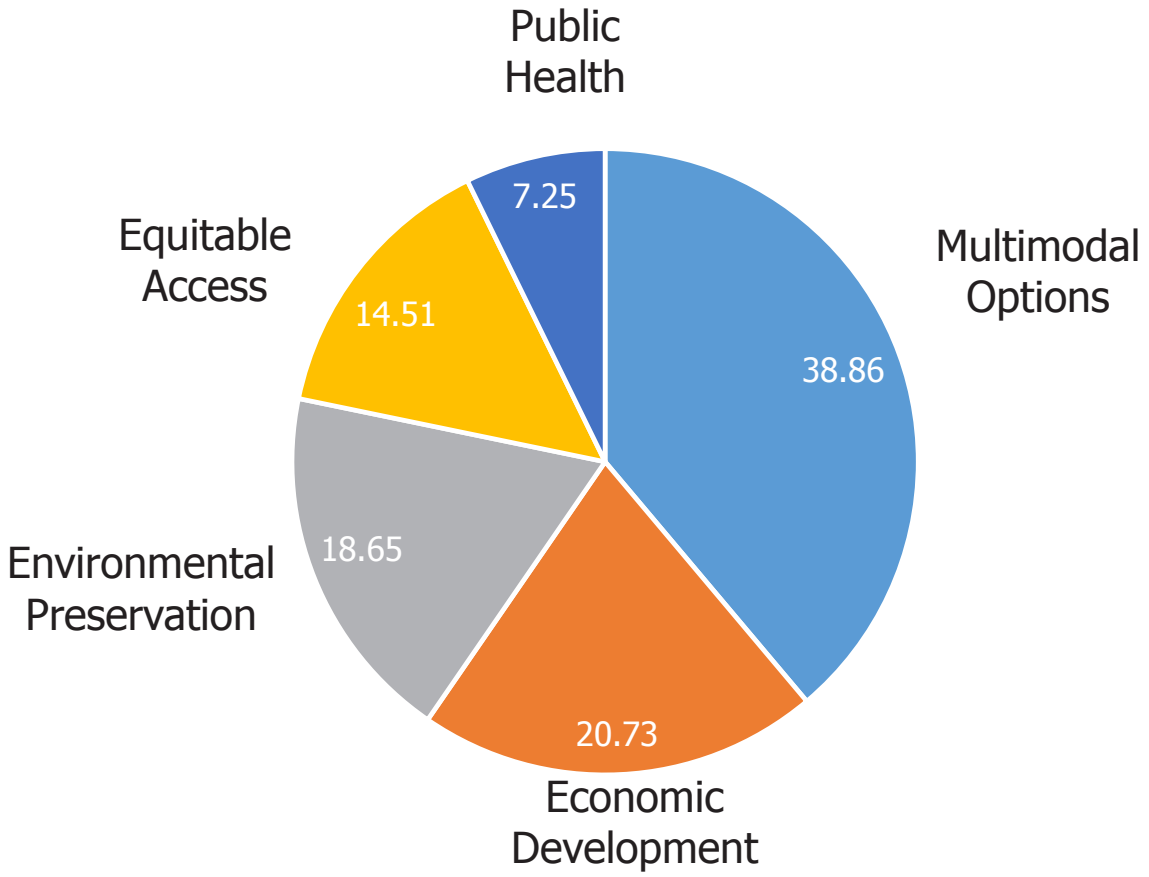
Create-global-standard-of-equitable-access
Public/private-partnerships
First/last-mile-connections
Clear-communications-plan
Car-share
Regional-connections
People-oriented-places
Reliable
Cool-Bus
Talent-attraction-through-mobility
Connectivity
Community-engagement
Outreach
Off-peak-bus-frequency
Alleviate-congestion
Mobility-for-Millennials
Aging-in-place
Smart-streets
Flexible
Ebikes
Circulator
Walkable-site-plans
Real-time-transit-info
Safety
public-health
Convenient
Reduce-emissions
Corporate-TDM
Collect-key-data
Bike-share
Affordable-Housing
Bridge-Park-housing
Provide-multimodal-options
Mobility-hubs
On-demand-transit
Infill-Development
Smart-growth
Multimodal-transit-center
Citywide-land-use-policies
Promote-TOD
Employee-Mobility
Mobility-as-a-Service

MOBILITY STUDY

PARTICIPATION

Most Important Mobility Vision Objective

1. Expand multimodal options	38.86%
2. Support economic development	20.73%
3. Preserve our environs by focusing on future growth	18.65%
4. Promote equitable access to mobility	14.51%
5. Improve public health	7.25%



ONLINE SURVEY

MOBILITY STUDY

PARTICIPATION

Average Rank of Multimodal Priorities
1. Safe streets for all users and modes
2. Improved non-driving mobility for Dubliners
3. Ample parking at all new development
4. Improved non-driving mobility for inbound commuters
5. More roadway capacity for cars
6. Improved carpool and vanpool opportunities

Average Rank of Parking Priorities
1. Keep parking free
2. Use technology to improve parking experience
3. Manage demand to reduce supply needs
4. Manage on-street demand to keep spaces available
5. Prevent commercial parking "spillover" into neighborhoods
6. Use parking revenues to fund mobility investments

Average Rank of Pedestrian Mobility Priorities
1. Improved pedestrian crossings
2. Improved lighting and traffic safety
3. A safe routes to school program
4. Wider sidewalks
5. Greater ADA compliance to ensure disabled access
6. Reduced vehicle speeds

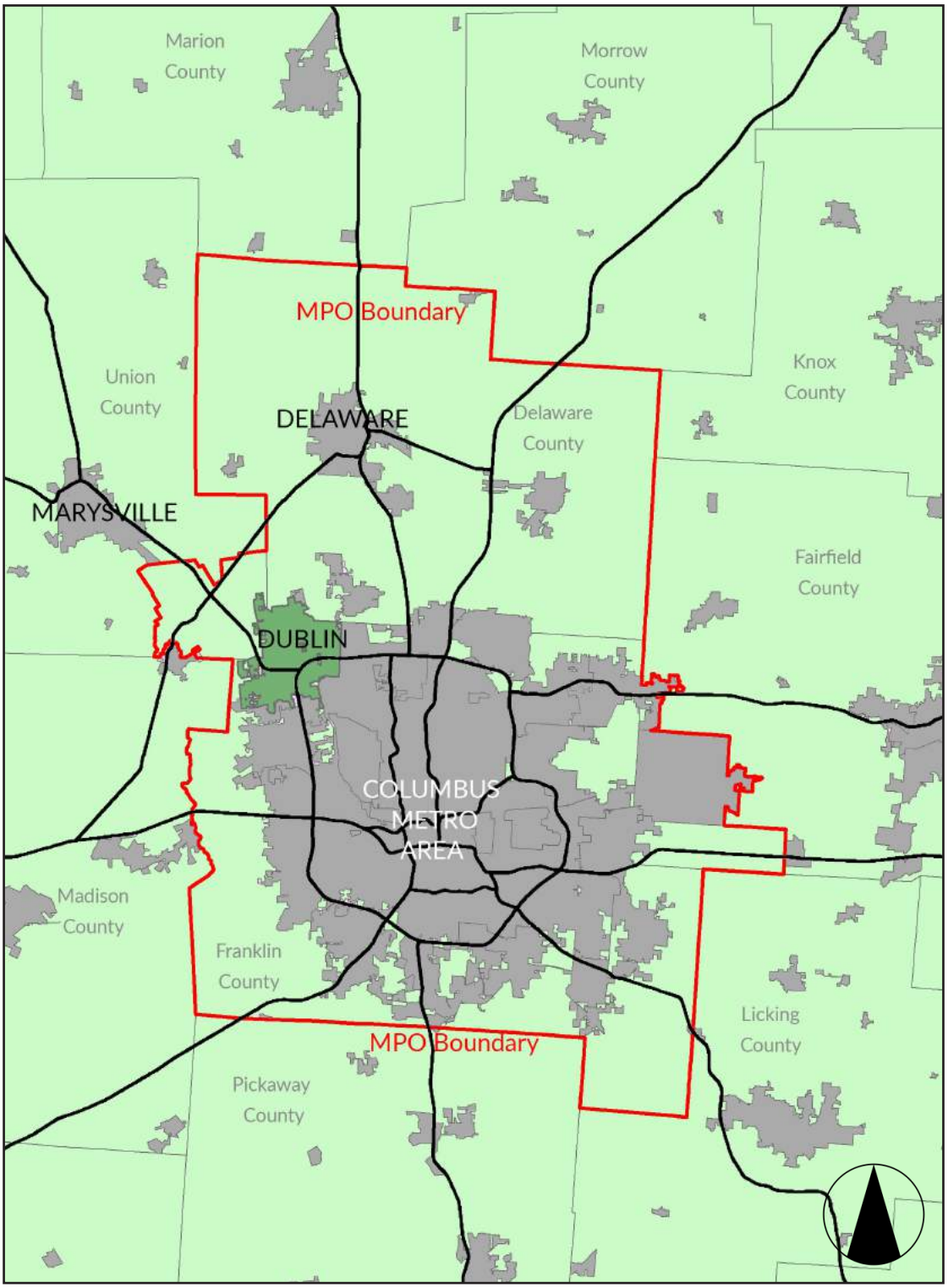
Average Rank of Bicycle Mobility Priorities
1. A more complete, connected network
2. More off-street bike paths
3. More public bike racks
4. Bike facilities at all new development
5. More in-street lanes
6. A bike-share program

Average Rank of Transit Mobility Priorities
1. Local public transit service
2. More regional service
3. More frequent regional service
4. Real-time next-bus / arrival info
5. Improved bus stops
6. Improved paratransit service

ONLINE SURVEY

MOBILITY STUDY

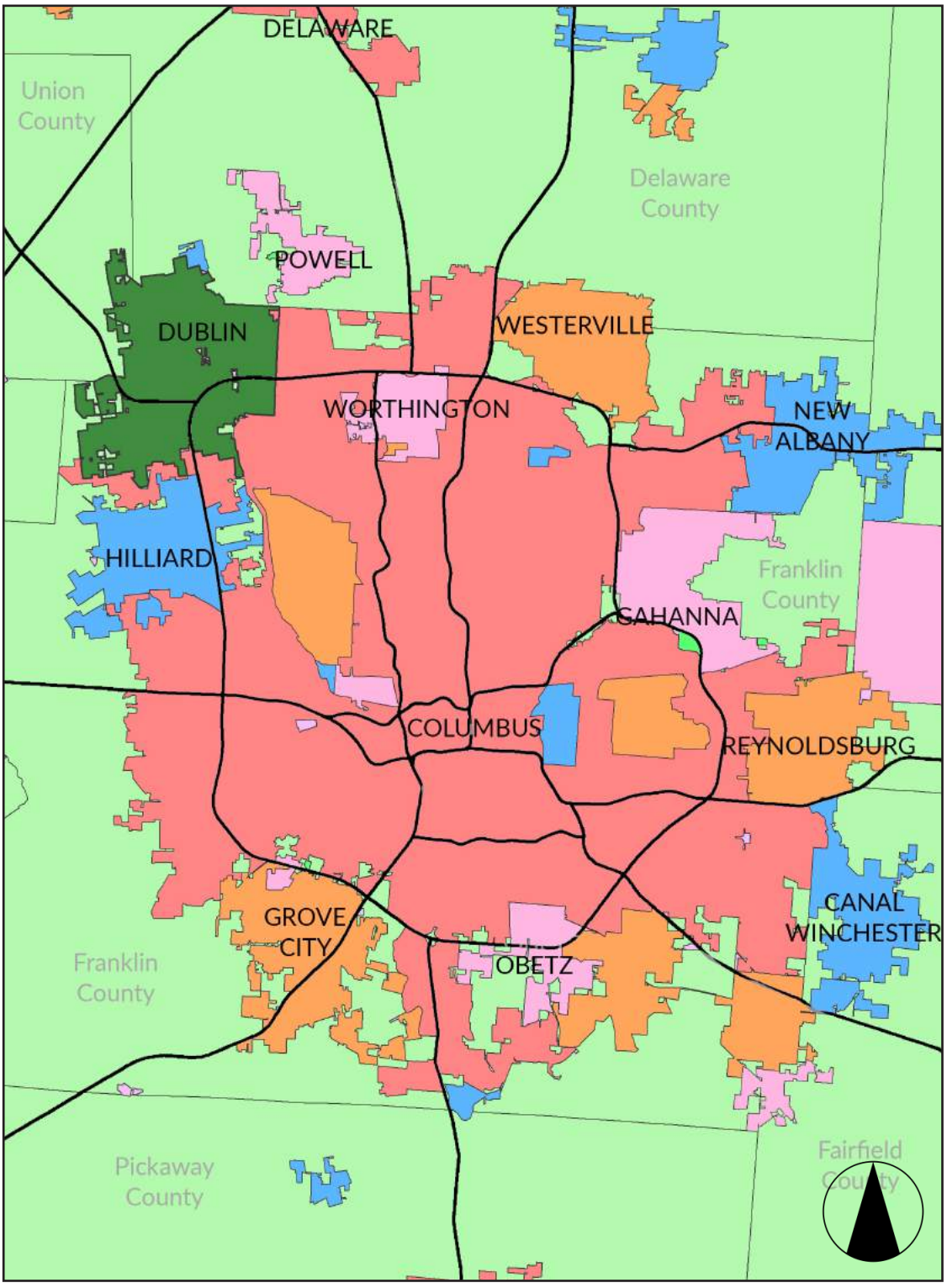
CONTEXT



Central Ohio

MOBILITY STUDY

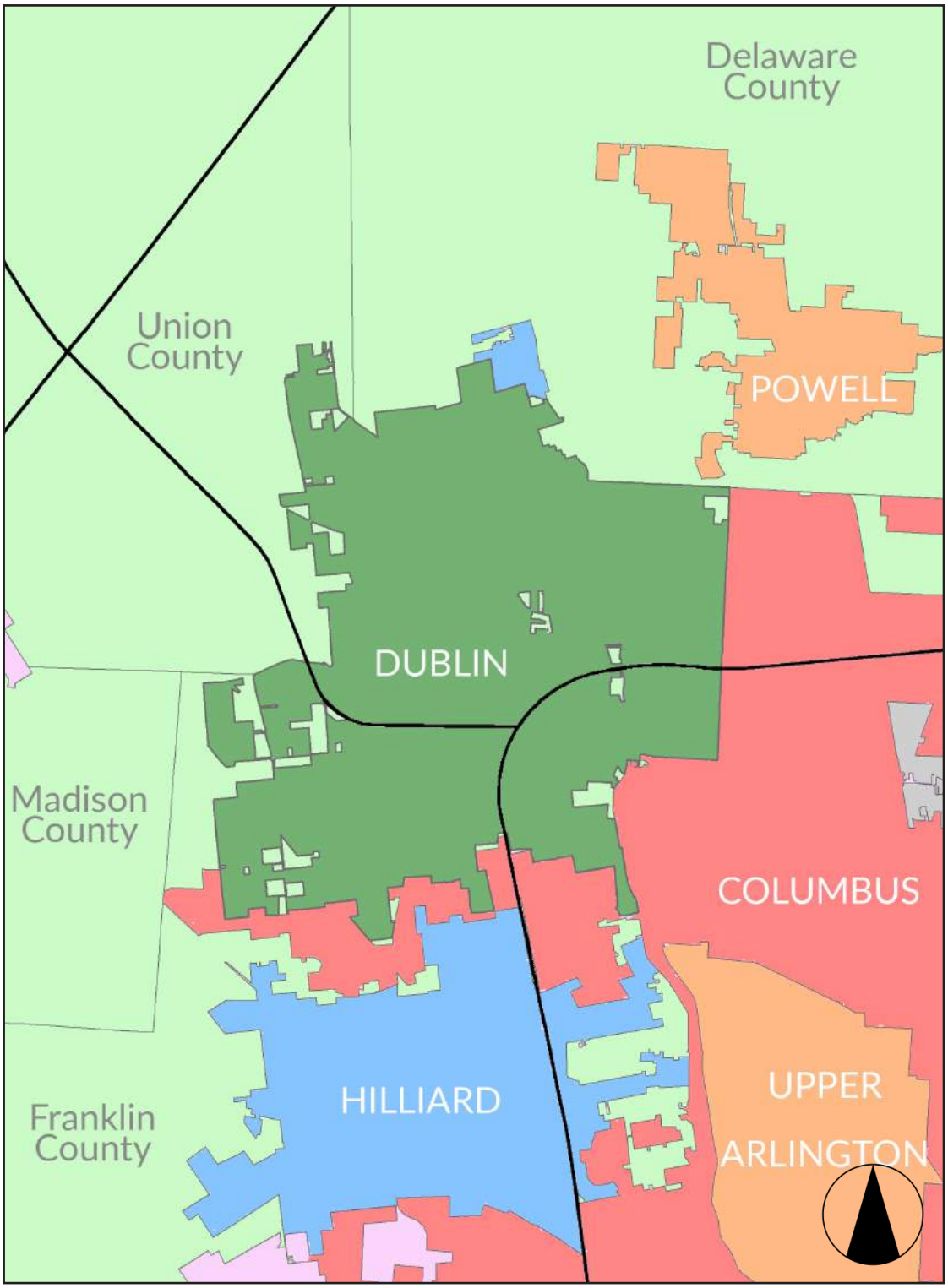
CONTEXT



Columbus Metro Area

MOBILITY STUDY

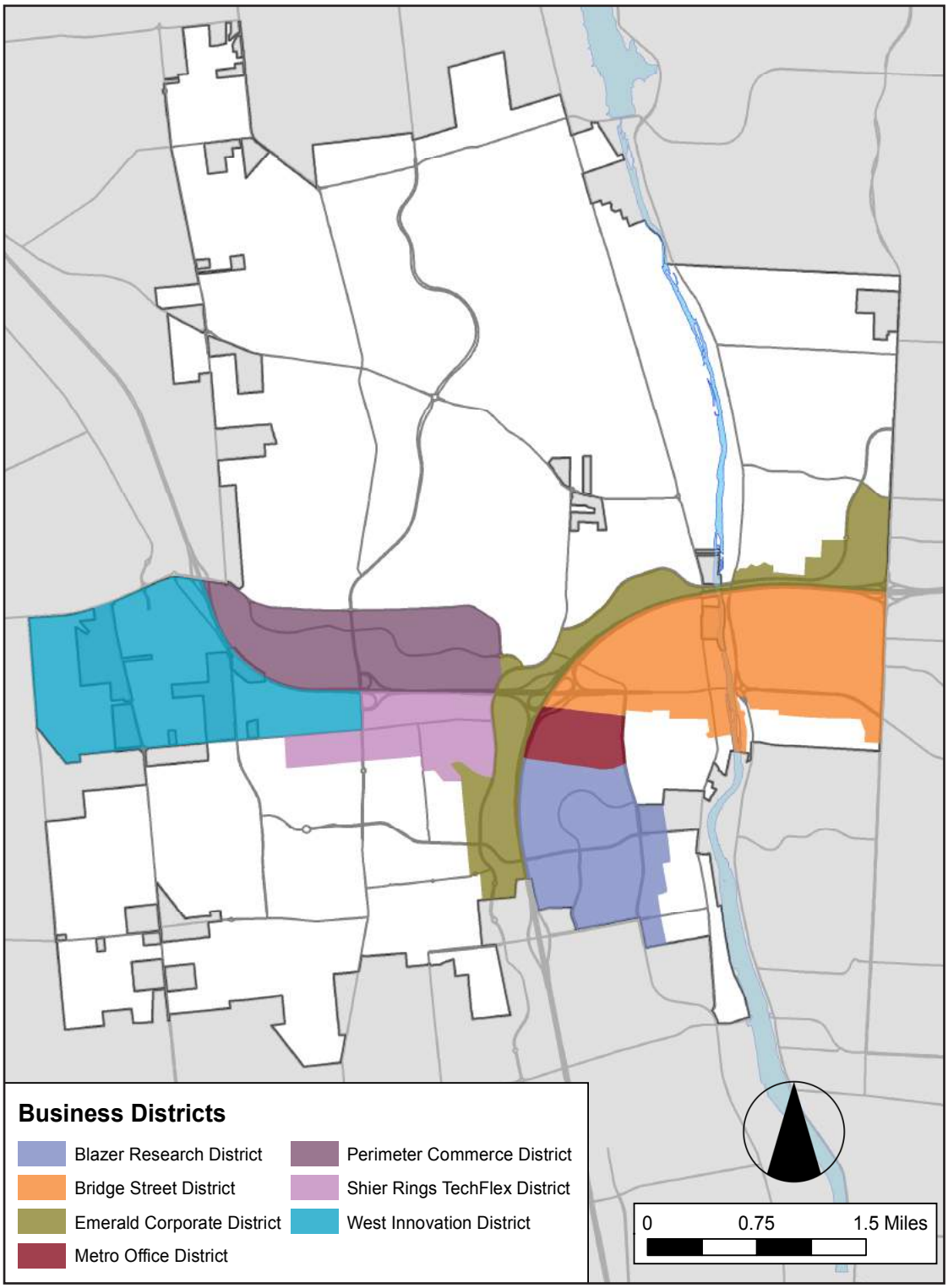
CONTEXT



Northwest Columbus

CONTEXT

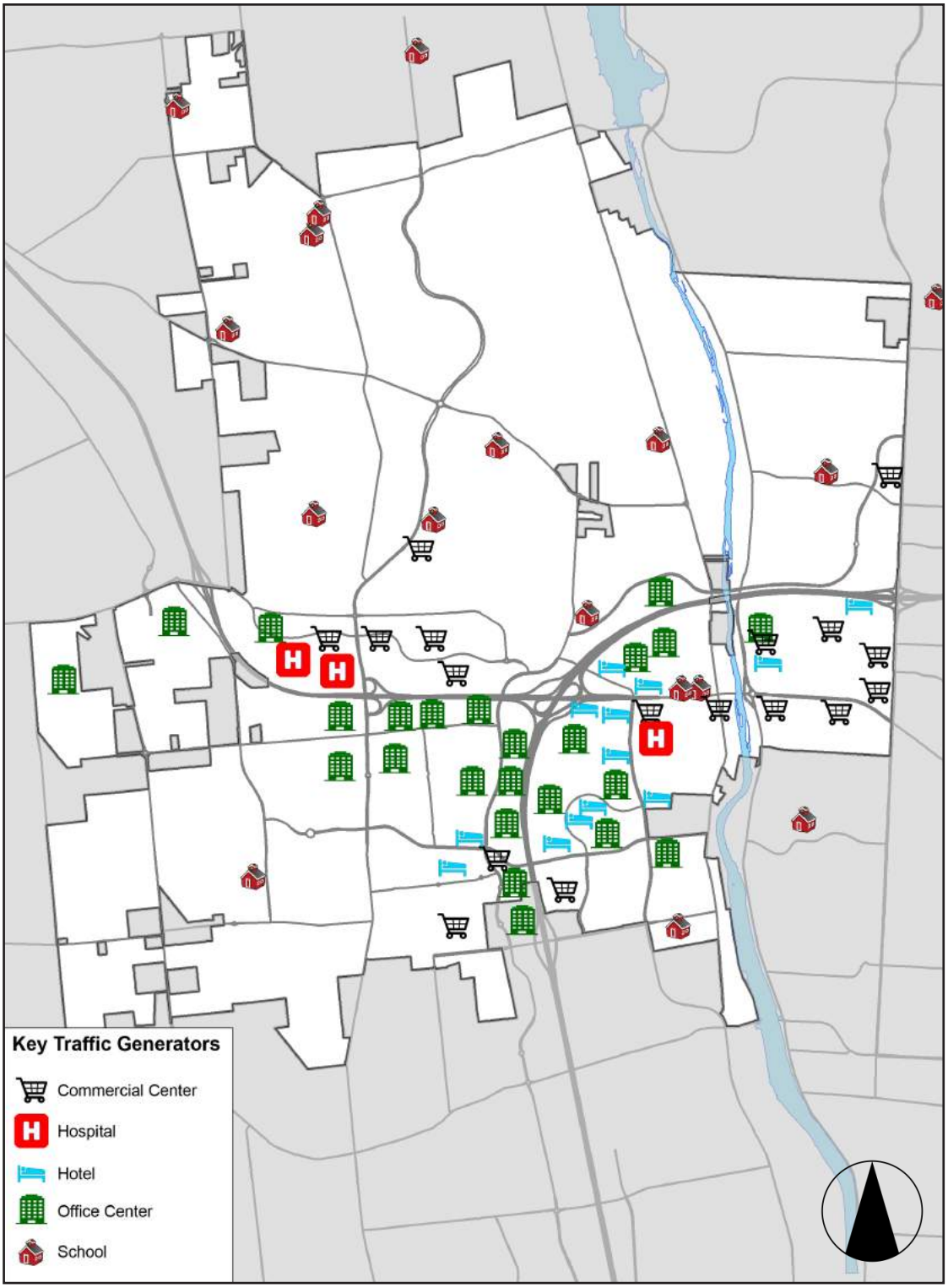
Business Districts



MOBILITY STUDY

CONTEXT

Travel Generators

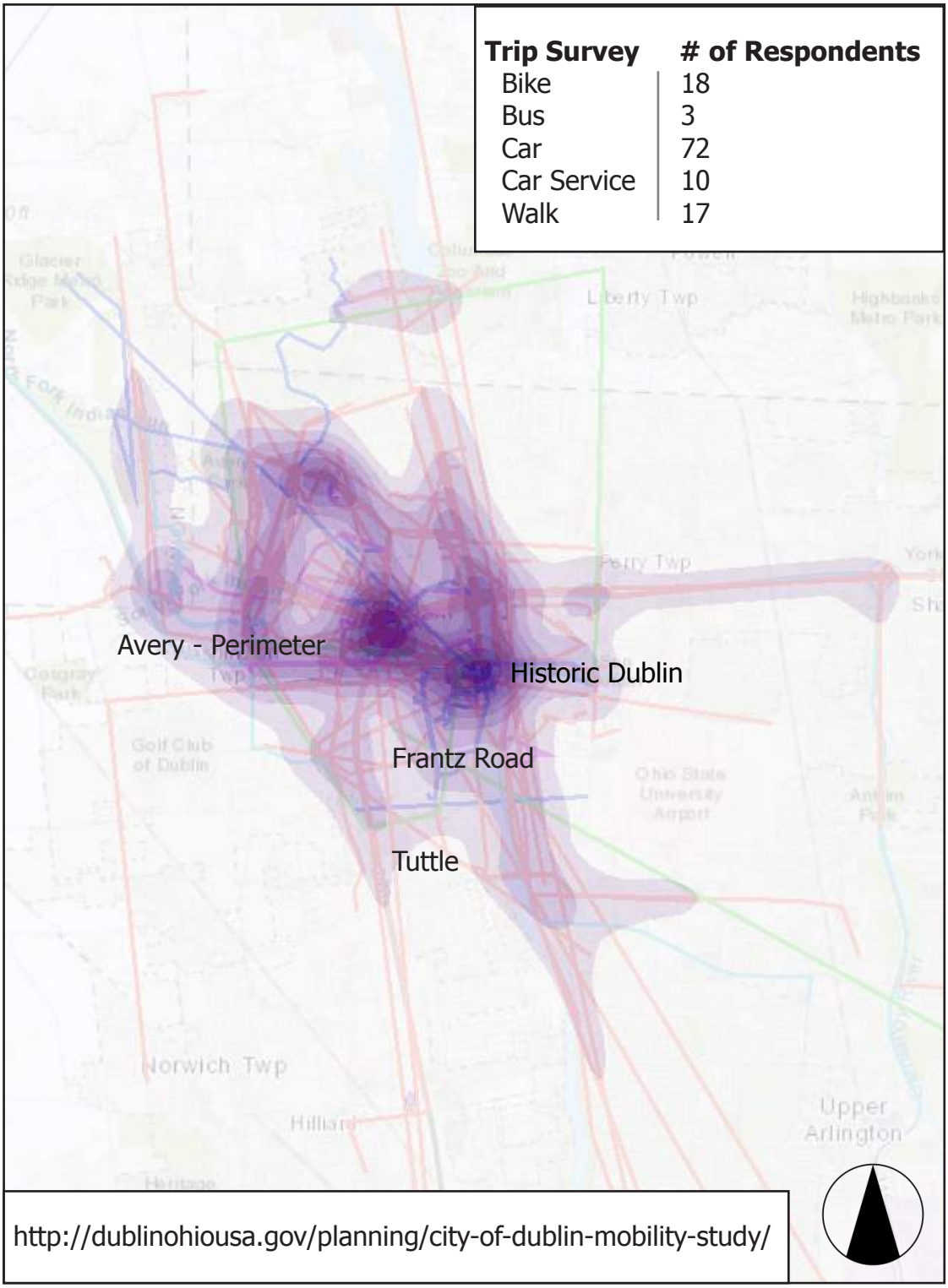


MOBILITY STUDY

CONTEXT

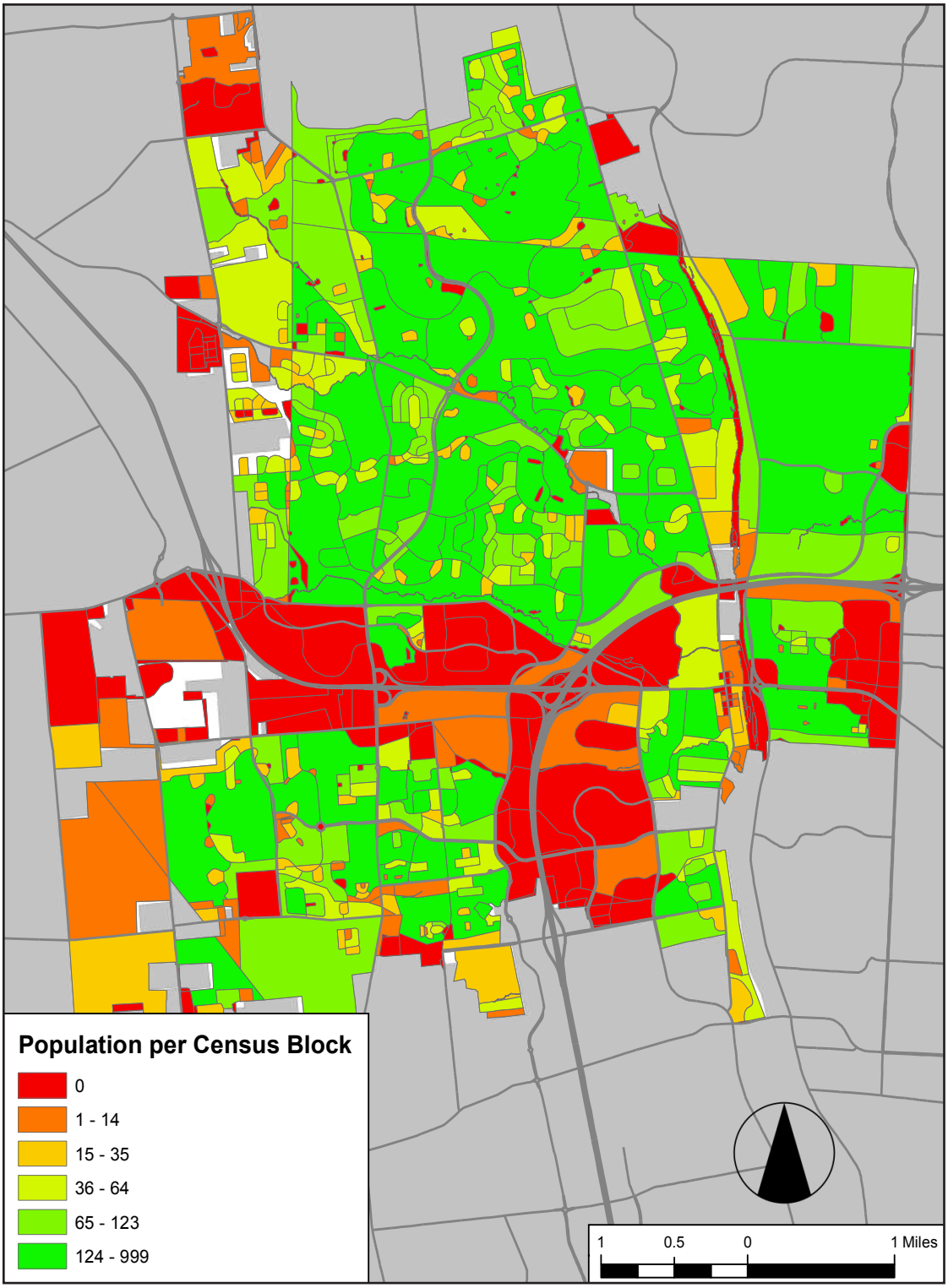
Origins and Destinations

Trip Survey	# of Respondents
Bike	18
Bus	3
Car	72
Car Service	10
Walk	17



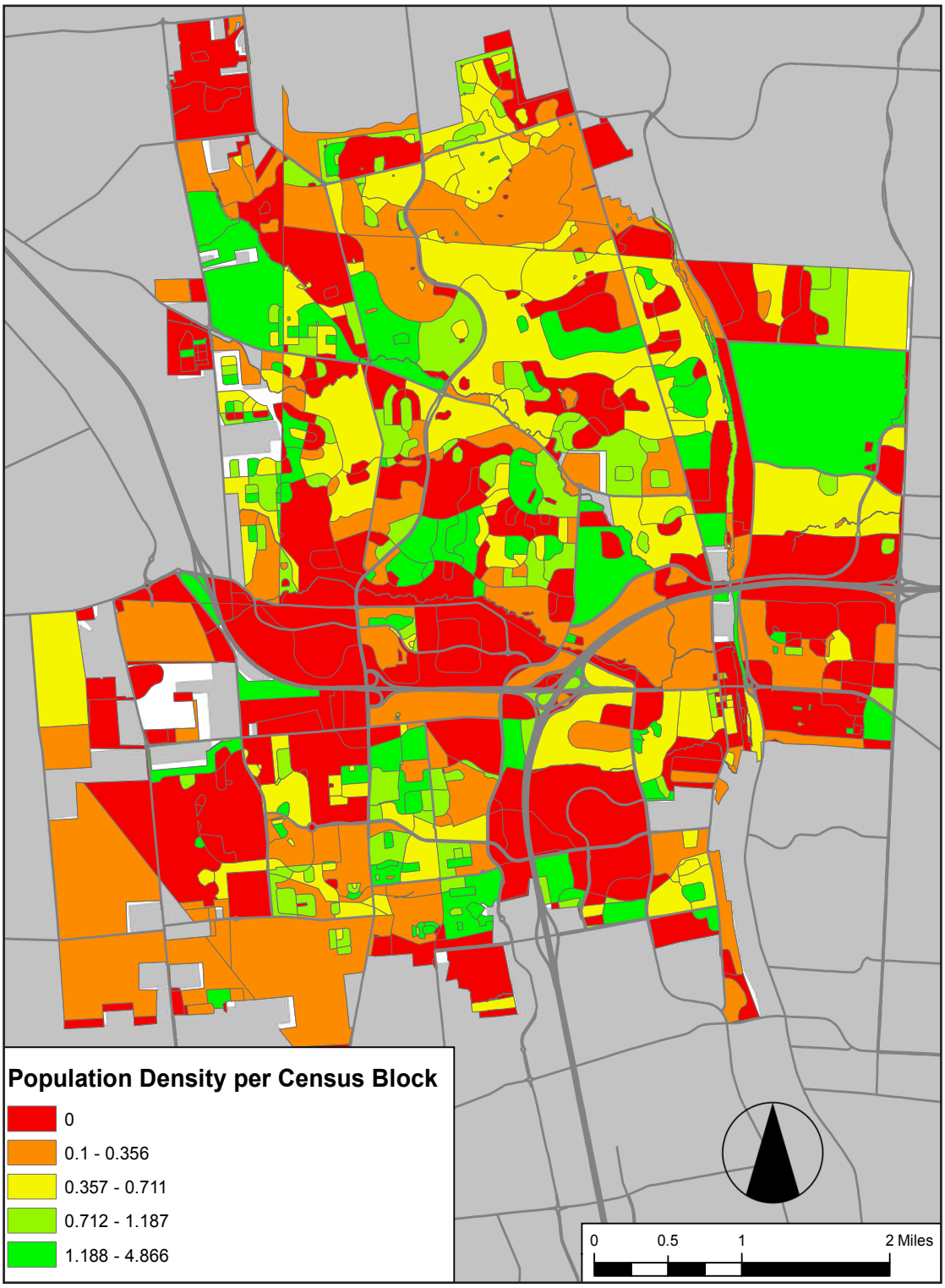
http://dublinohiousa.gov/planning/city-of-dublin-mobility-study/

DEMOGRAPHICS



POPULATION

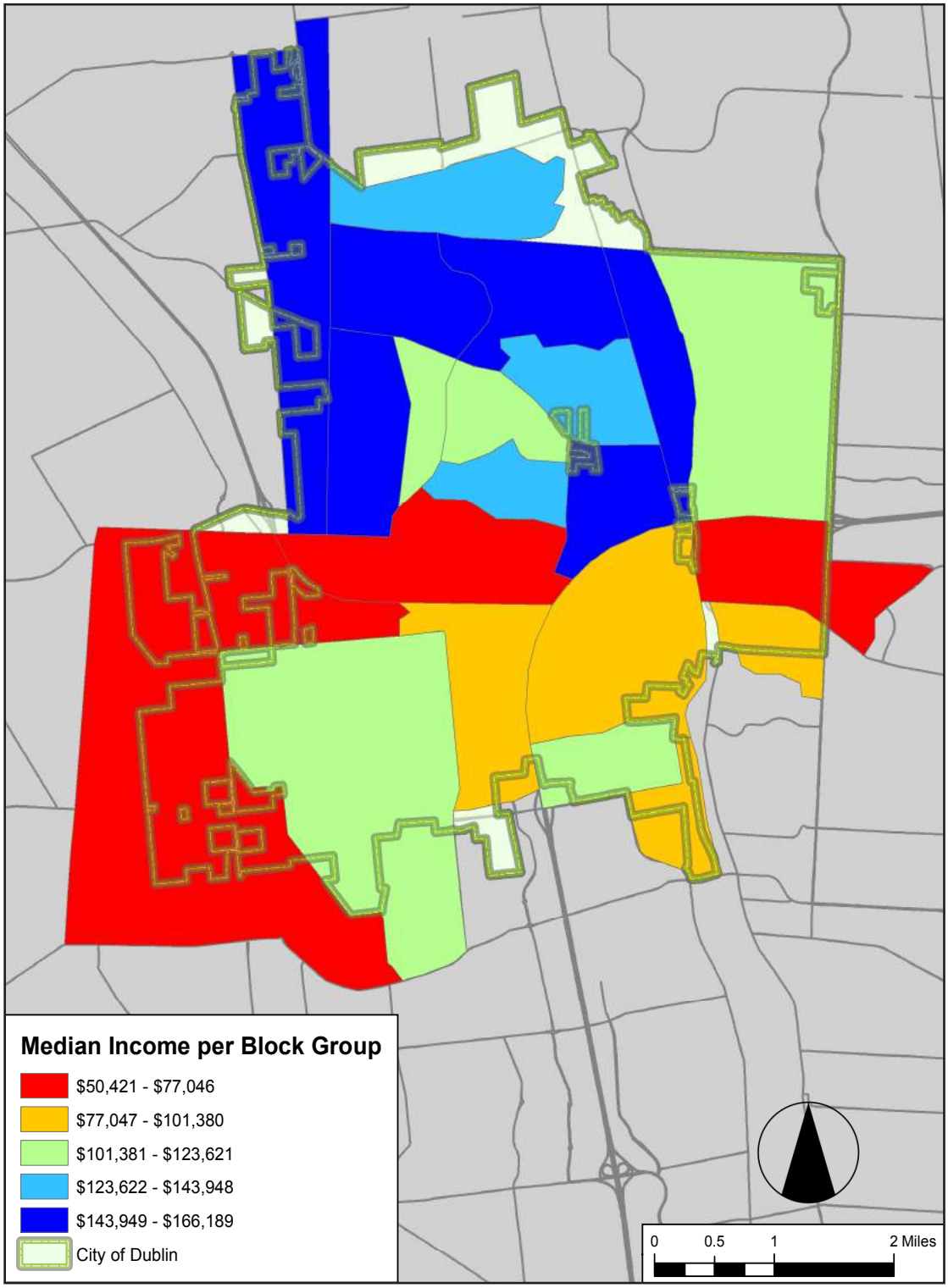
DEMOGRAPHICS



POPULATION DENSITY

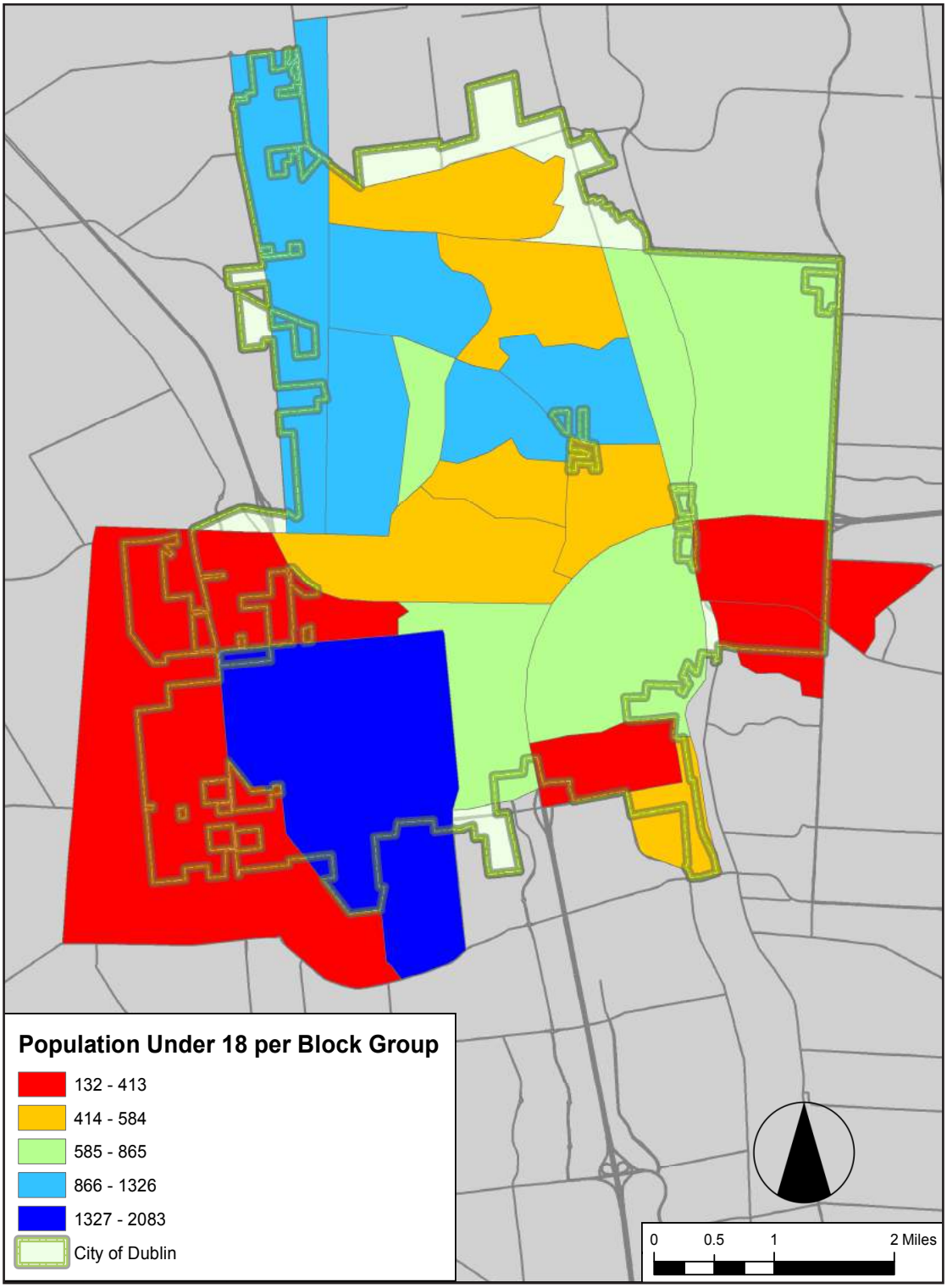
DEMOGRAPHICS

MEDIAN INCOME

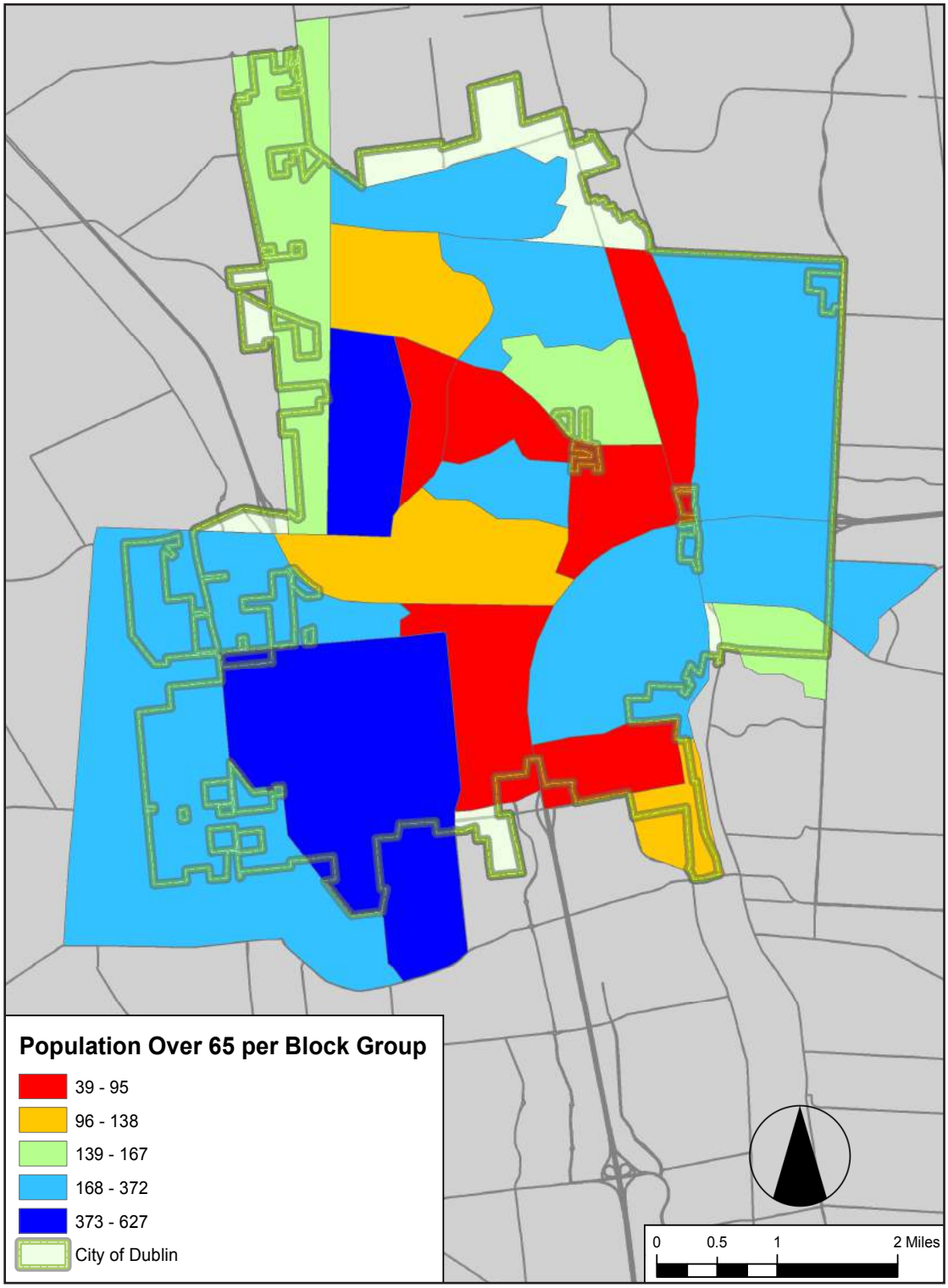


DEMOGRAPHICS

POPULATION UNDER 18



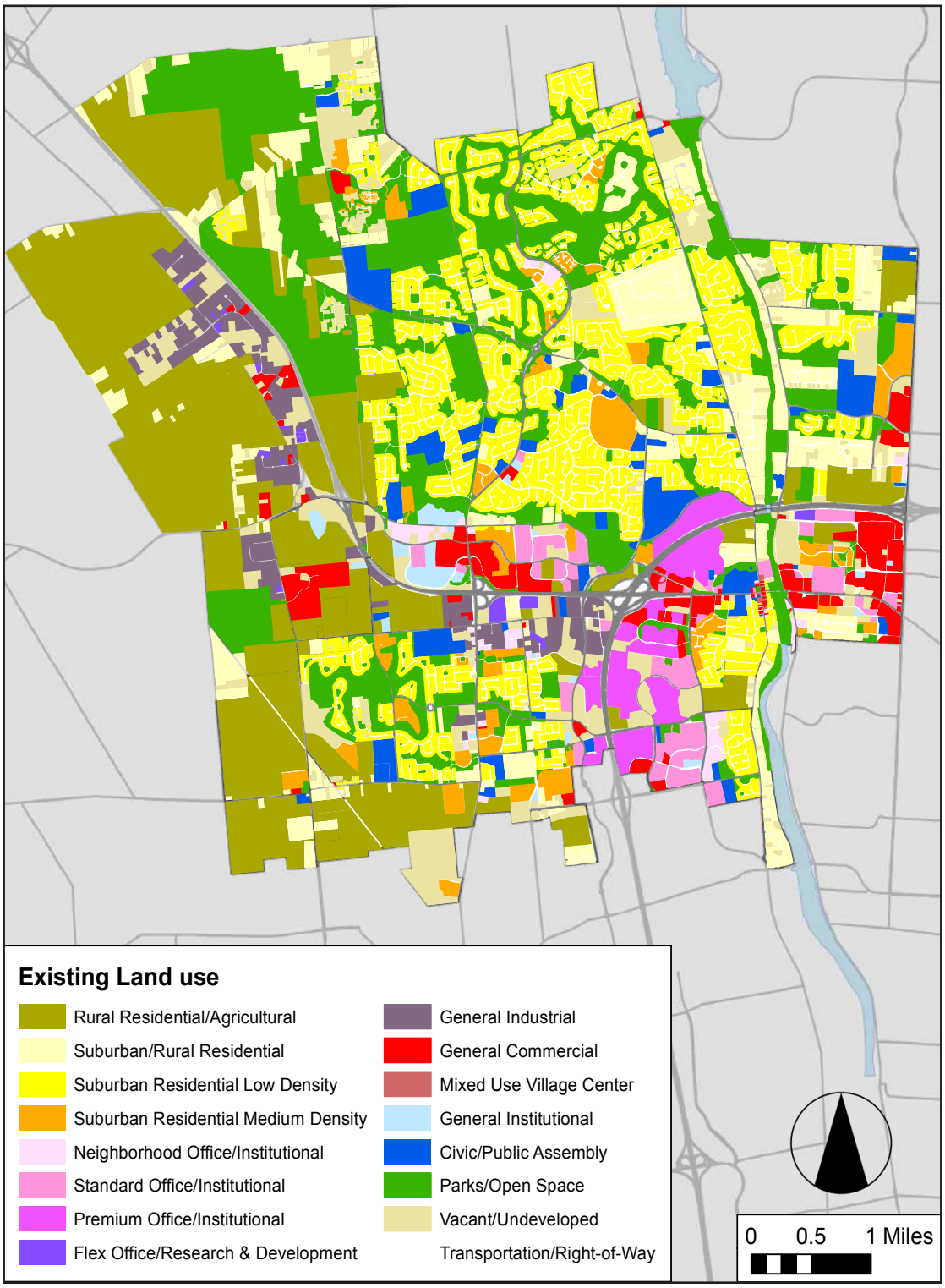
DEMOGRAPHICS



POPULATION OVER 65

MOBILITY STUDY

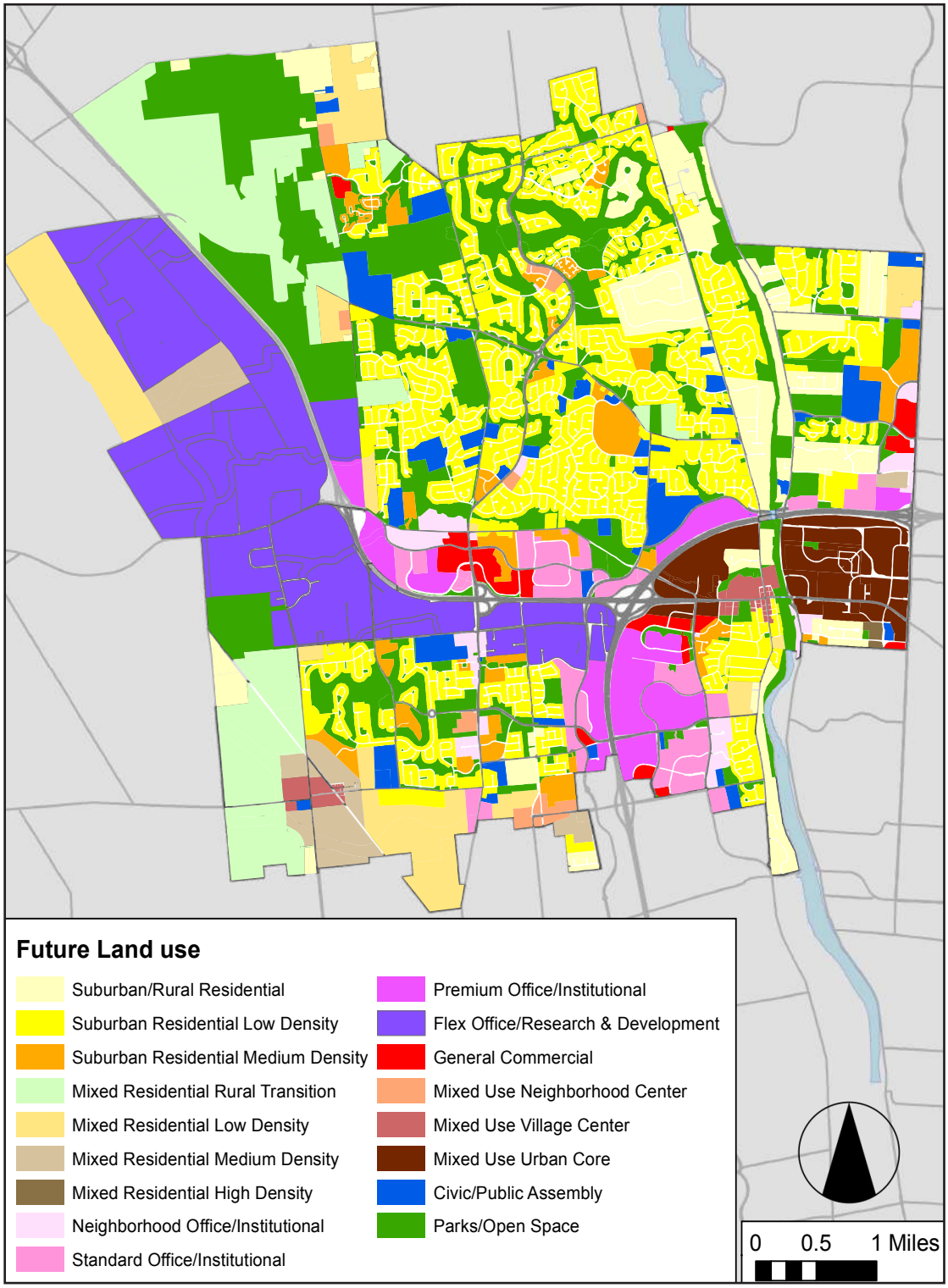
DEVELOPMENT



EXISTING LAND USE

MOBILITY STUDY

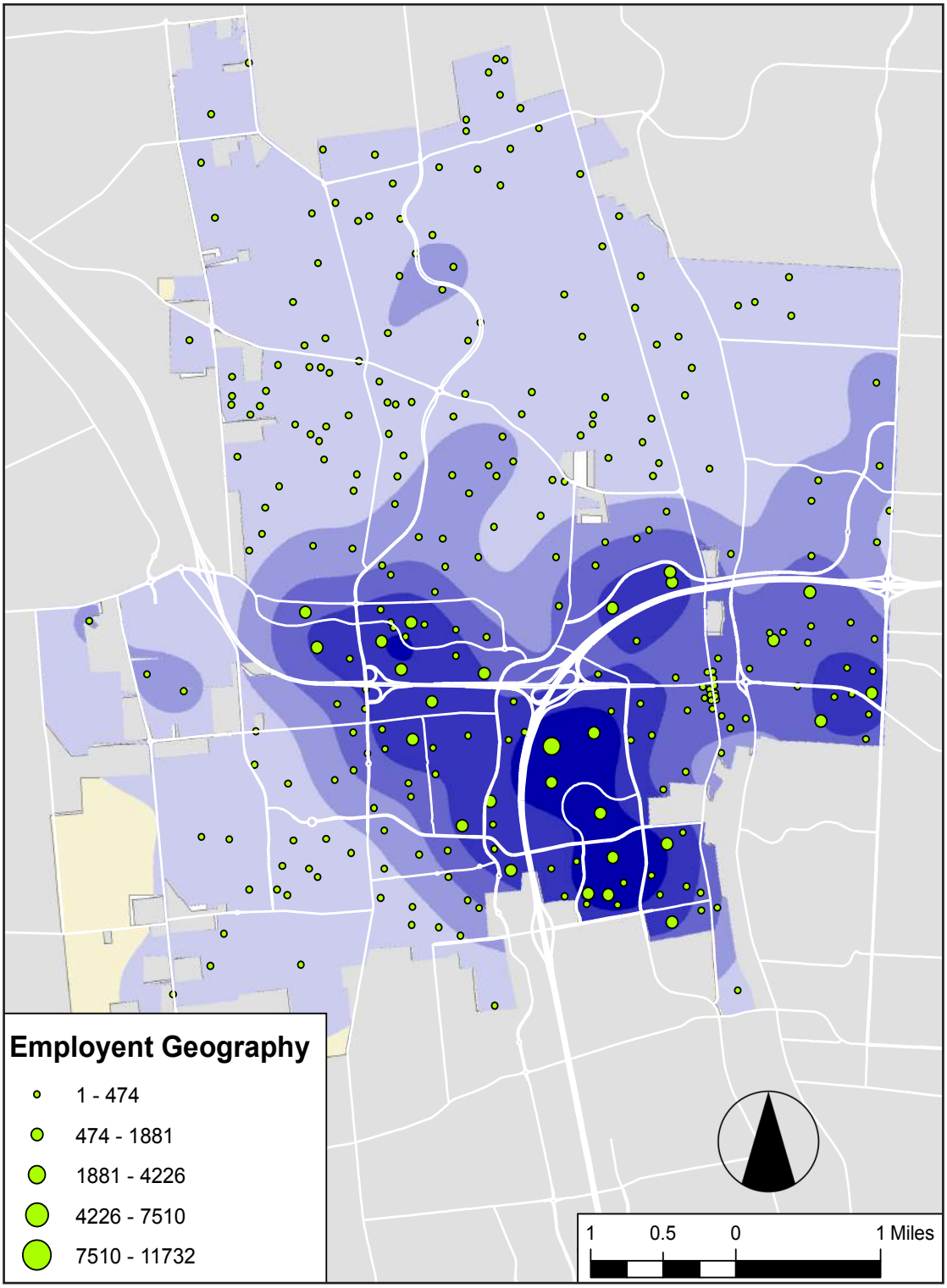
DEVELOPMENT



FUTURE LAND USE

MOBILITY STUDY

EMPLOYMENT

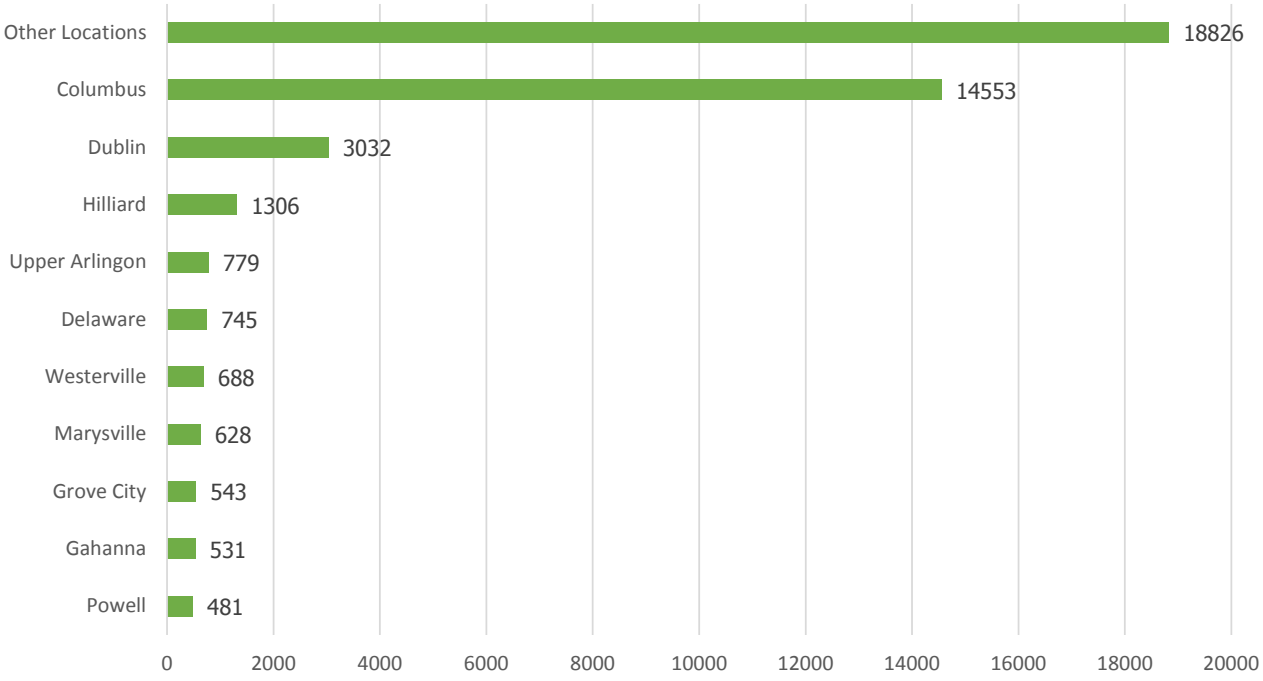


EMPLOYMENT DENSITY

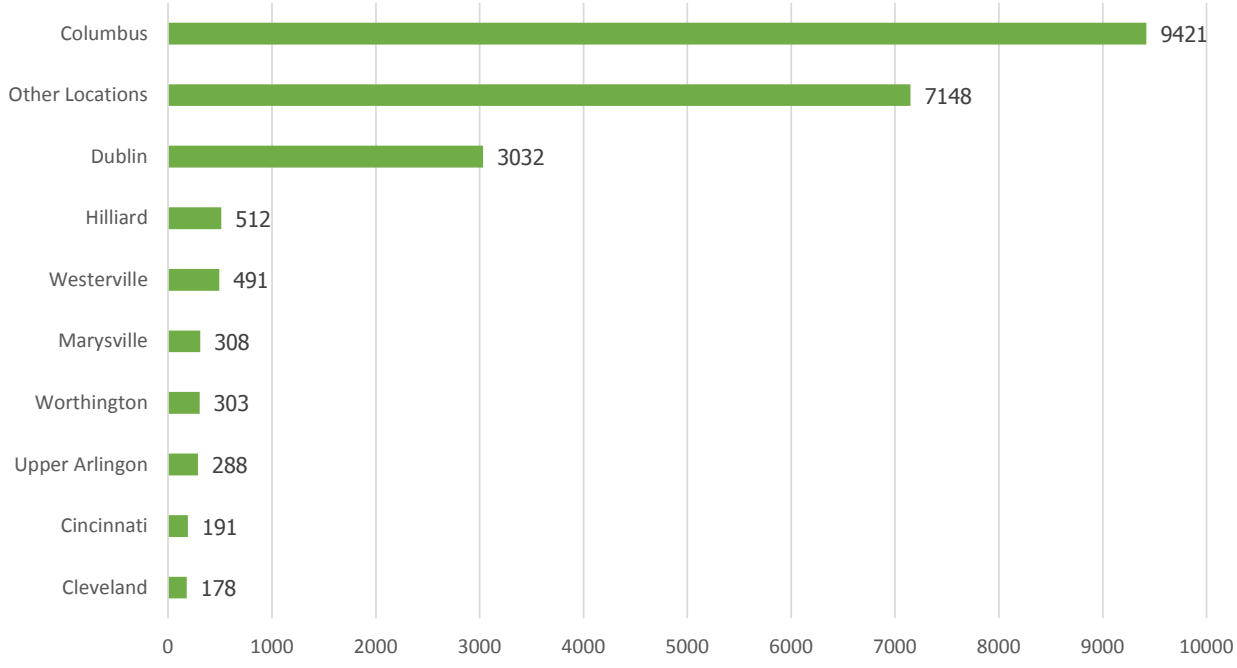
MOBILITY STUDY

EMPLOYMENT

HOME LOCATIONS OF DUBLIN WORKERS



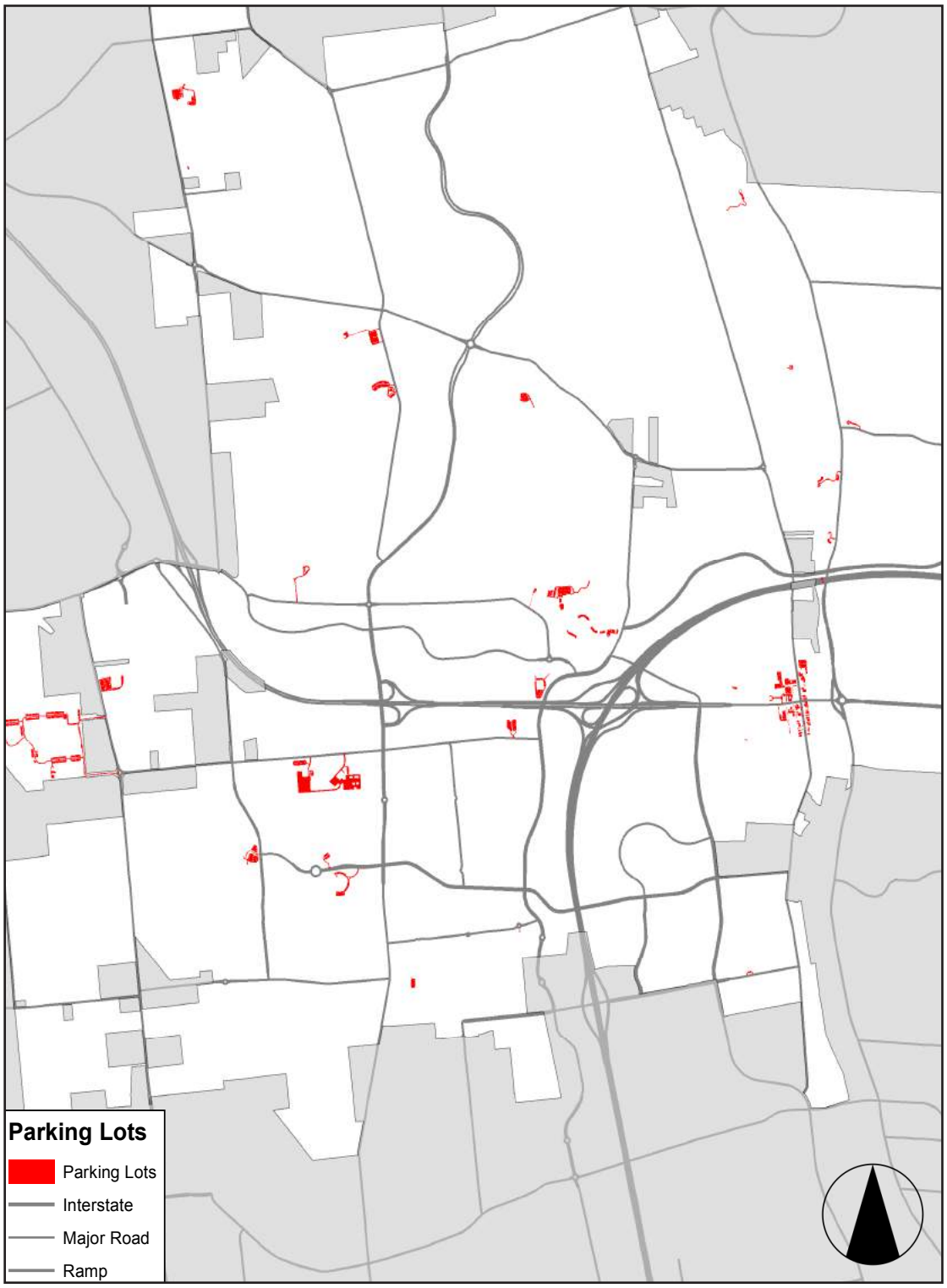
WORK LOCATIONS OF DUBLIN RESIDENTS



EMPLOYMENT LOCATION DATA

MOBILITY STUDY

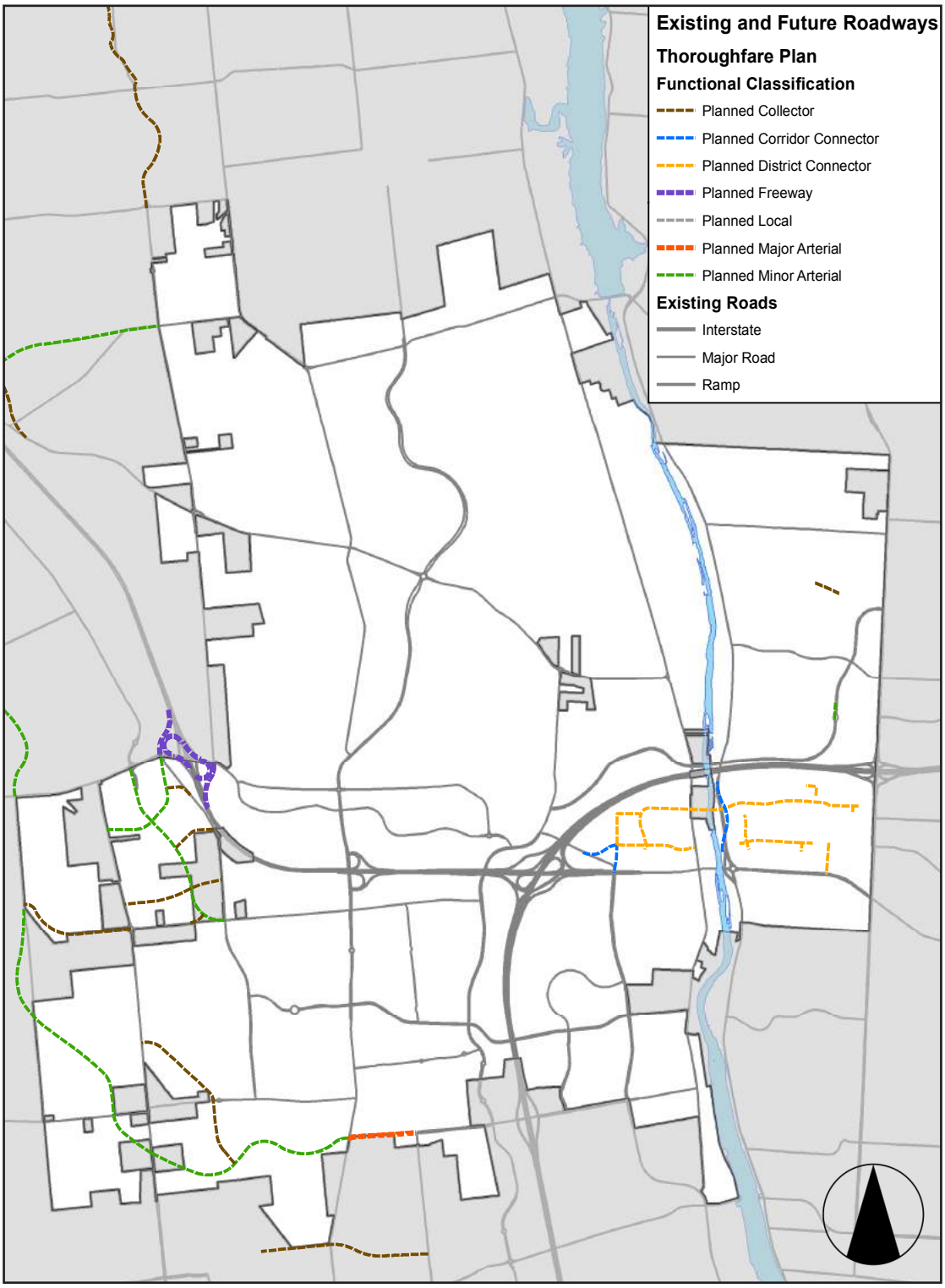
PARKING



DUBLIN PARKING LOTS

MOBILITY STUDY

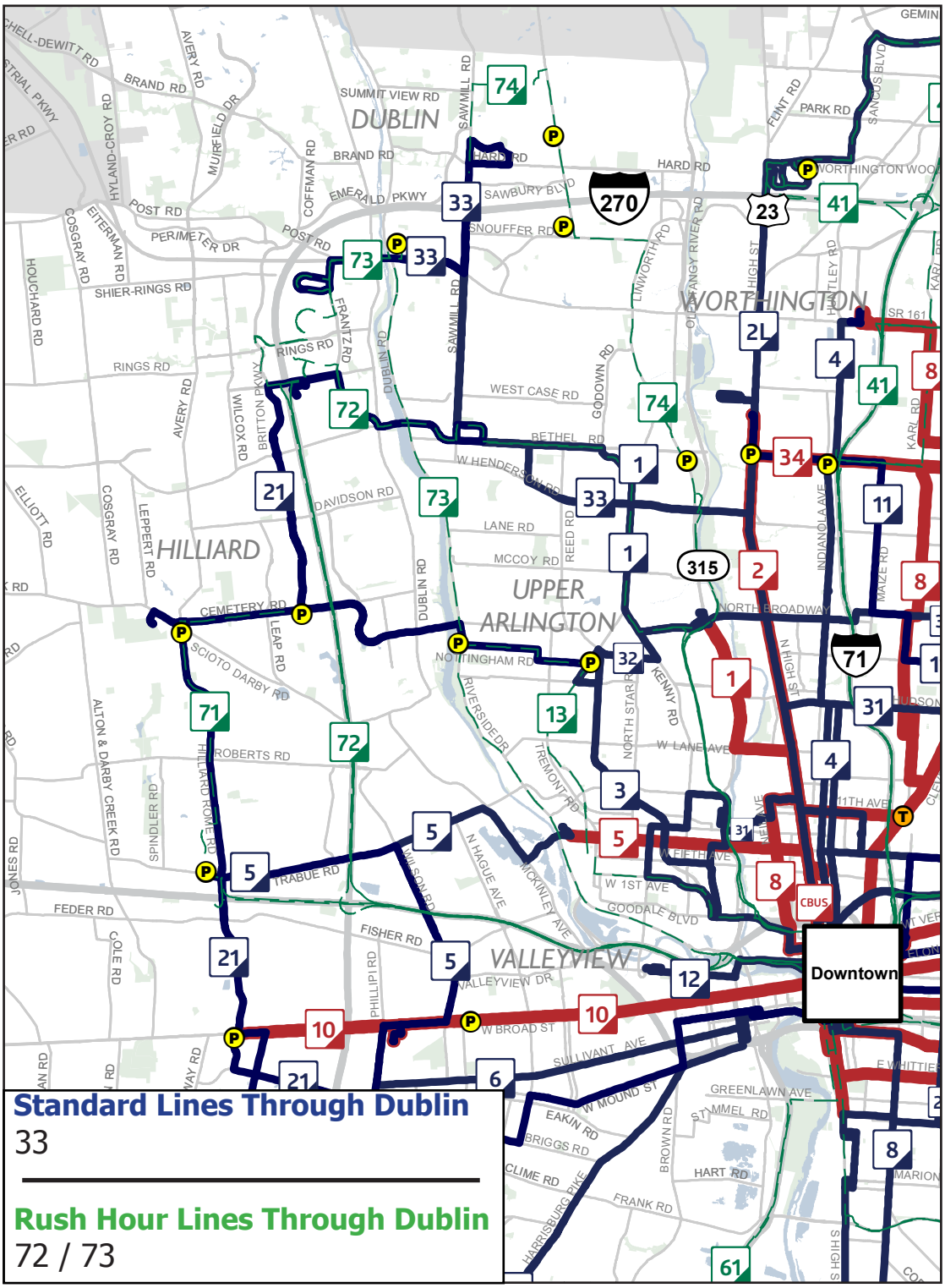
STREET NETWORK



EXISTING AND PLANNED ROADWAYS

MOBILITY STUDY

TRANSIT



Standard Lines Through Dublin

33

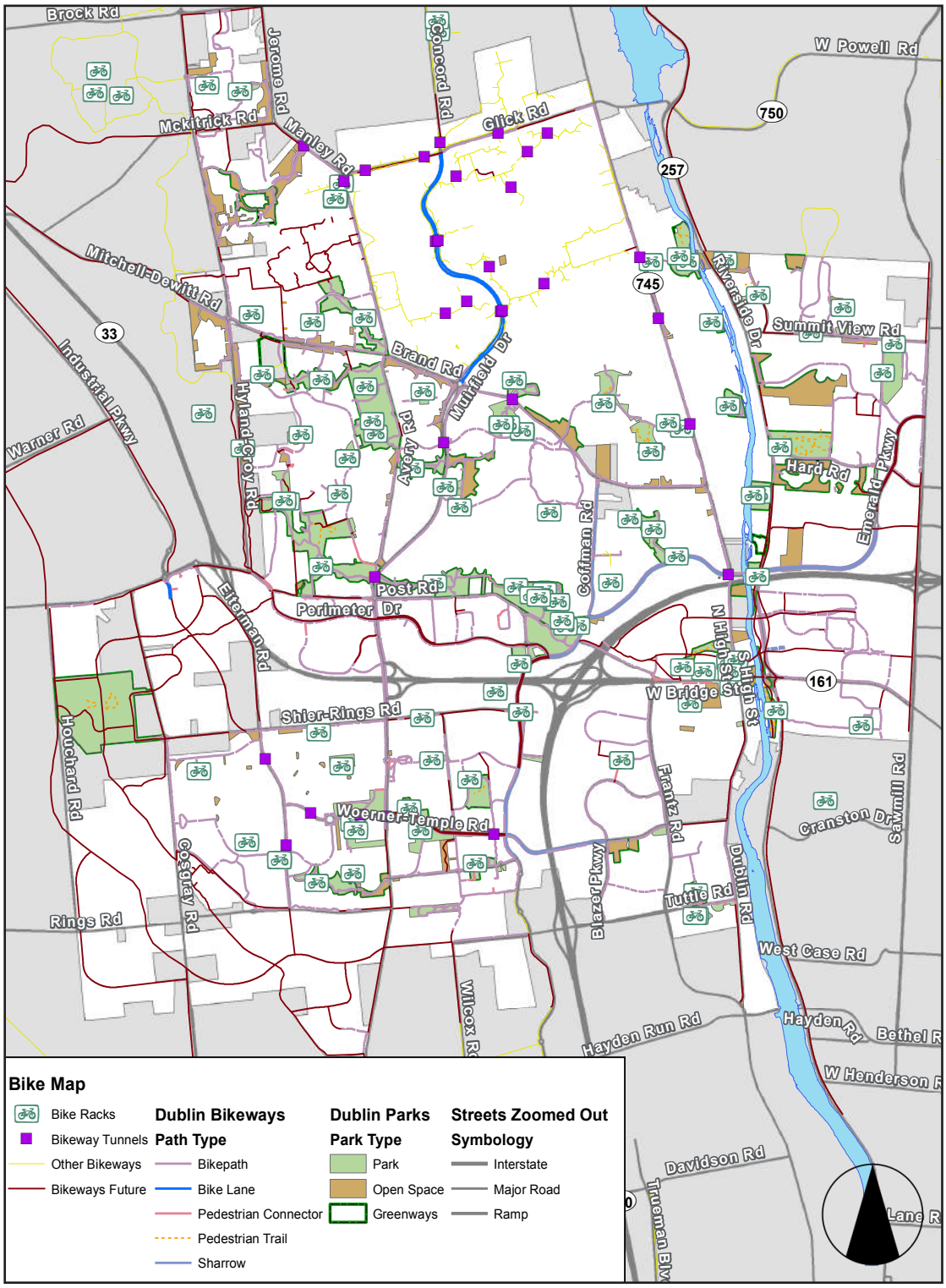
Rush Hour Lines Through Dublin

72 / 73

COTA LINES

MOBILITY STUDY

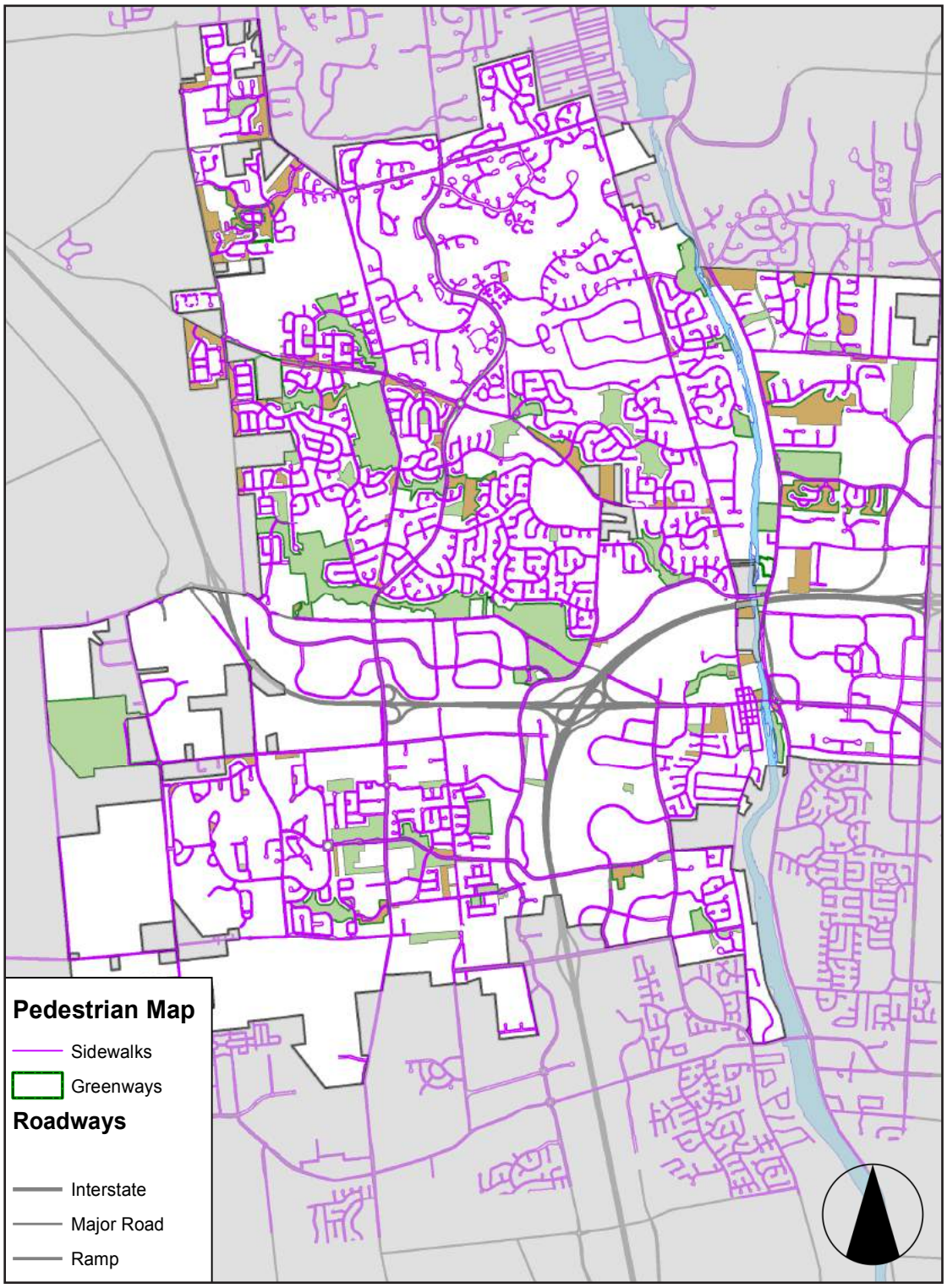
WALKING AND BIKING



BIKING MAP

MOBILITY STUDY

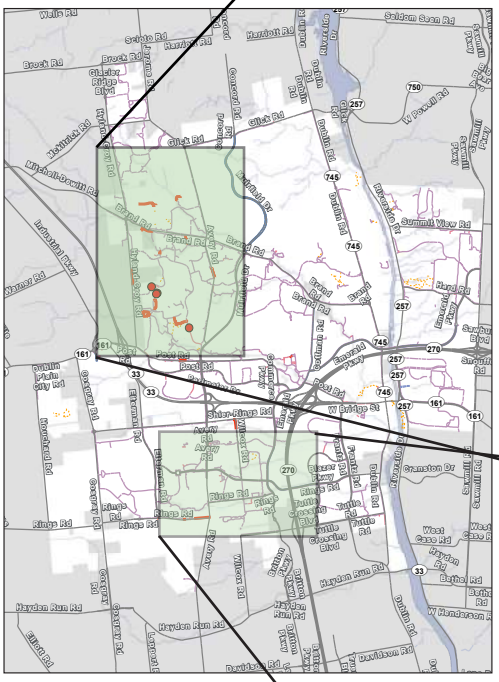
WALKING AND BIKING



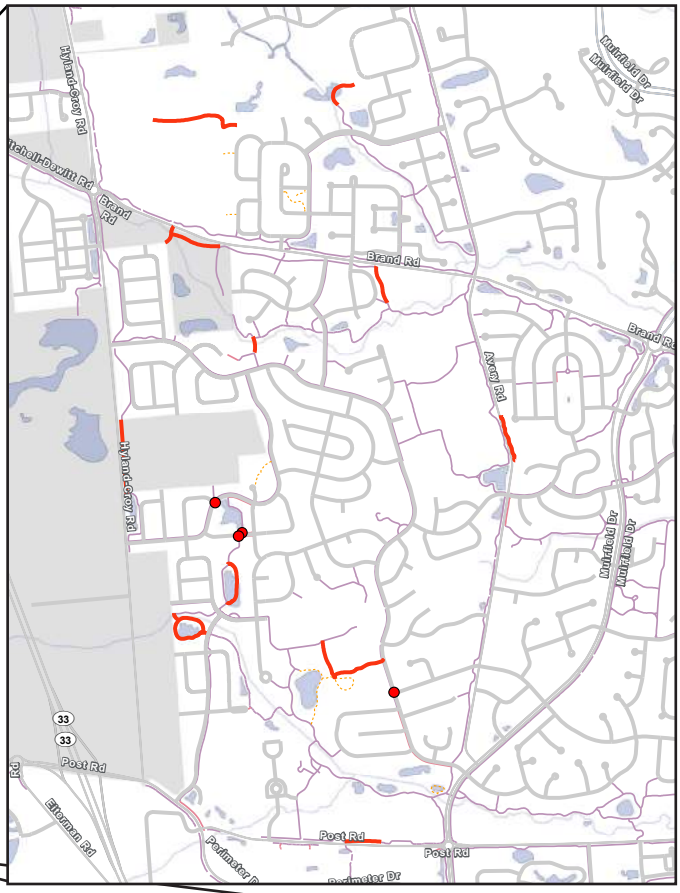
PEDESTRIAN MAP

MOBILITY STUDY

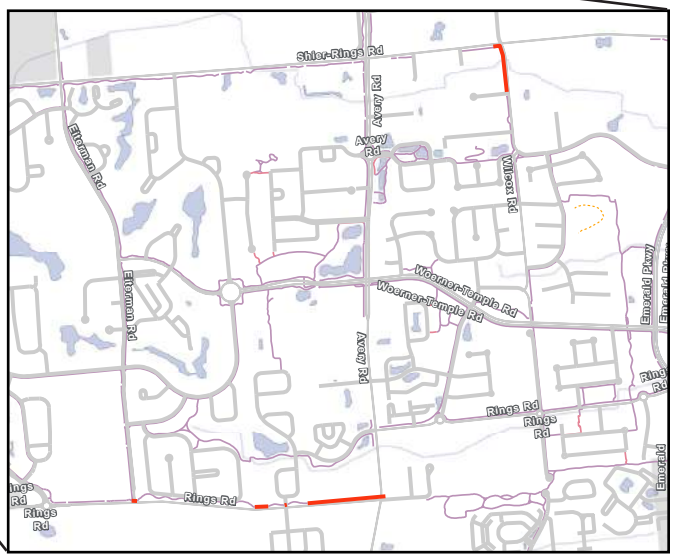
WALKING AND BIKING



NORTHWEST DUBLIN



CENTRAL DUBLIN



MOBILITY GAP MAP

Rank	Action Item	Principles-Support Rating					Total	Achievability Rating				Budget (part of Dept. workload)	Viability Score
		Economic Development	Equitable Access	Multimodal Options	Public Health	Focused Growth		Community Served	Viability	Internal Capacity	Legal Authority	Total	
	survey weight	20	17	37.5	7.5	18							
7	TDM - mobile app	5	5	5	2	3	**44.15**	3	14	4	**4**	**25**	**69.15**
5	bike trip facilities	4	5	5	5	5	**48**	2	20	3	**3**	**28**	**76**
3	Commuter Bike corridors (O&M)	5	4	5	5	5	**48.3**	3	17	5	**4**	**29**	**77.3**
2	wayfinding	5	4	5	4	5	**47.55**	3	17	5	5	**30**	**77.55**
6	Multimodal Hubs	5	5	5	3	5	**48.5**	3	15	4	**5**	**27**	**75.5**
12	Regional bike connections	4	5	4	5	4	**42.45**	2	15	3	**3**	**23**	**65.45**
16	car share (provide locations)	3	3	3	3	3	**30**	3	14	2	**4**	**23**	**53**
10	circulator	5	5	5	5	5	**50**	2	6	4	**5**	**17**	**67**
8	bike lanes	4	4	4	5	5	**42.55**	2	14	5	**5**	**26**	**68.55**
9	infrastructure gaps	4	5	4	5	4	**42.45**	2	14	5	5	**26**	**68.45**
15	Transport Network Co. (cost sharing)	3	4	3	3	3	**31.7**	2	16	3	**3**	**24**	**55.7**
11	bike boulevards	3	3	4	5	5	**38.85**	2	16	5	**5**	**28**	**66.85**
1	bike share	5	5	5	5	5	**50**	3	17	4	**5**	**29**	**79**
4	Mobility / Parking / TDM coordinator	5	5	5	5	5	**50**	3	14	5	**5**	**27**	**77**
13	First mile - last mile strategies	3	5	5	5	1	**38.8**	2	15	3	**5**	**25**	**63.8**
14	Hopper Cart (provide cost sharing)	5	3	3	3	4	**35.8**	2	14	2	**3**	**21**	**56.8**
17	youth/senior transportation strategies	1	5	5	5	2	**36.6**	1	3	4	**5**	**13**	**49.6**

Rank	Action Item	Principles-Support Rating					Total	Achievability Rating				Budget (part of Dept. workload)	Viability Score
		Economic Development	Equitable Access	Multimodal Options	Public Health	Focused Growth		Community Served	Viability	Internal Capacity	Legal Authority	Total	
	survey weight	20	17	37.5	7.5	18							
2	Update dev. code to align with mobility goals	4	5	5	5	5	**48**	3	16	5	5	**29**	**77**
8	Develop housing - live - work Policies	4	5	5	5	5	**48**	3	14	4	5	**26**	**74**
4	implement ped/bike priority infrastructure design	4	5	5	5	5	**48**	3	17	4	4	**28**	**76**
5	Formalize Active Transportation Policy	4	5	5	5	5	**48**	2	16	5	5	**28**	**76**
6	Identify Infill parcels for walkable community design	3	5	5	5	5	**46**	2	18	5	5	**30**	**76**
1	Formalize Complete Streets Policy	5	5	5	5	5	**50**	2	18	5	5	**30**	**80**
7	Apply walkable design standards new developments	4	4	5	5	4	**44.5**	2	18	5	5	**30**	**74.5**
10	non-motorized connections prioritized	4	5	5	5	5	**48**	2	16	4	3	**25**	**73**
13	walk/bike to school policies	3	5	5	5	5	**46**	1	14	1	1	**17**	**63**
9	prioritize infilling the infrastructure gaps	3	5	5	5	5	**46**	3	16	4	5	**28**	**74**
11	Shared Parking policy	5	5	4	2	4	**42.2**	2	16	4	5	**27**	**69.2**
3	Mobility / Parking / TDM coordinator	5	5	5	5	5	**50**	3	14	5	**5**	**27**	**77**
12	bike education (schools, employers)	3	5	5	5	3	**42.4**	1	18	2	**2**	**23**	**65.4**
14	Formalize Autonomous Vehicle Policy	4	5	4	1	2	**35.85**	2	16	5	4	**27**	**62.85**

viability lower numbers = lower (immediate) achievability	Short range (0-3 years)	Long range (3-5 years)	Future consideration(5-10 years)	City implement	Public/Private partner to implement	outside implementer (City coord. only)	CIP (needs specific funding)	Budget (part of Dept. workload)	Private	Grant or other financing	new City staffing	service provider - maintenance contrac	current city department and staffing	**totals**
Action Item	5	3	1	5	3	1	1	3	5	3	1	3	5	
infrastructure														
TDM - mobile app	5			5				3			1			14
bike trip facilities	5			5	3			3	5	3			5	29
Commuter Bike corridors (O&M)		3		5	3			3			1			15
wayfinding		3			3		1		5		1	2		15
Multimodal Hubs		3												3
Regional bike connections	5					1		3					5	14
car share (provide locations)	5					1			5				5	16
circulator			1		3		1				1			6
bike lanes		3				1			5				5	14
infrastructure gaps		3		5			1			3			5	17
Transport Network Co. (cost sharing)		3			3		1			3			5	15
bike boulevards	5			5			1			3		3		17
bike share		3		5			1						5	14
Mobility / Parking / TDM coordinator	5			5			1						5	16
First mile - last mile strategies		3			3		1		5	3			5	20
Hopper Cart (provide cost sharing)		3		5			1			3			5	17
youth/senior transportation strategies		3		5			1						5	14
Policy														
Develop housing - live - work Policies	5				3				5				5	18
implement ped/bike priority infrastructure design		3		5				3					5	16
Formalize Active Transportation Policy		3				1			5				5	14
Identify Infill parcels for walkable community design	5			5			1						5	16
Formalize Complete Streets Policy		3		5			1	3					5	17
Apply walkable design standards new developments	5			5				3					5	18
non-motorized connections prioritized		3		5				3					5	16
walk/bike to school policies		3		5				3					5	16
prioritize infilling the infrastructure gaps	5			5				3					5	18
Shared Parking policy		3		5				3					5	16
Mobility / Parking / TDM coordinator	5			5				3					5	18
bike education (schools, employers)		3		5				3					5	16
Formalize Autonomous Vehicle Policy			1	5				3					5	14

Strategy	Details	Implementation Actions	First Steps	More Information	
Create a Parking/Mobility/TDM Coordinator position	One person tasked with monitoring how parking, mobility, and TDM are serving Mobility principles, as well as opportunities for improvement.	Coordinates with related City departments, as well as key stakeholders to monitor conditions	Review peer-city case studies to outline viable options	http://agency.governmentjobs.com/raleighnc/job_bulletin.cfm?jobID=1200128&sharedWindow=0	http://web1.ctaa.org/webmodules/webarticles/anmviewer.asp?a=372
Identify potential Mobility Hubs to focus network and infrastructure connections	Places of connectivity where different modes of transportation – from walking to rapid transit – come together places of connectivity where different modes of transportation – from walking to rapid transit – come together seamlessly	Map new mobility services and networks as they emerge and evolve	Use Gap Map to identify where different modal networks overlap and how a "hub" could offer benefits.	http://www.sdforward.com/fwdAsp/mobilityhub.aspx	http://bostoncompletestreets.org/pdf/2013/5_3_MobilityHubs.pdf
Explore options to improve youth/senior transportation	Improving transportation for seniors requires different considerations: pedestrian infrastructure connections, terrain may require electric-assist bicycles, senior destinations may be different from those prioritized by other modes/groups	Coordinate with existing human service agencies, public transit providers, and private services to improve transportation options for seniors	Formalize an All Ages. All Places mobility policy.	http://t4america.org/docs/SeniorsMobilityCrisis.pdf	
Comprehensive Communications Plan	Create a unified, comprehensive communications plan for mobility, parking, and TDM information, signage, wayfinding and promotions	Develop an RFP for engaging an Information Design consultancy.	Research to identify precedents to inform the RFP and selection process (create a Pinterest page). Depending on results, in-house development may be preferable to engagement. https://www.pinterest.com/pin/346003183843648150/	http://designworkplan.com/wayfinding/introduction.htm	https://www.alexandriava.gov/uploadedFiles/alexandriavagov/ProjectsAndPlans/Transportation/WayfindingSystemDG2010.pdf

Strategy	Details	Implementation Actions	First Steps	More Information		
Identify "Transit Priority" Corridors	Identify corridors that would best serve high-functioning local transit service to key Dublin activity centers and popultions.	Overlay with Gap Map	Complete a Transit Propensity analysis	http://rvarc.org/wp-content/uploads/2016/09/TVP-PART-4-FINAL-9-22-16.pdf	https://www.lincoln.ne.gov/city/pworks/startran/tdp/pdf/transit-propensity.pdf	http://indywalkways.org/wp-content/uploads/2015/10/WW-Equity-8.pdf
Develop Circulator Strategy	Explore pilot options	Identify potential private employer/vendor partners	Identify sub-markets to help define likely routes and other characteristics.	http://www.reconnectingamerica.org/assets/Uploads/tcrpsyn87.pdf	http://hoppercarts.com/	http://humantransit.org/2009/04/seattle-transit-blog-is-reporting-some-grief-from-the-rainier-valley-area-in-southeast-seattle-regarding-king-county-metros.html
Explore partnerships with on-demand transit providers	Private services are partnering with cities and transit agencies, and some offer a "platform" for communities to create their own services	Coordinate with COTA, which is exploring partnership options	Explore a partnership modeled after KCATA's Ride KC: Bridj partership in Kansas City, Mo	https://platform.ridewithvia.com/	http://www.citylab.com/cityfixer/2016/02/kansas-city-bridj-microtransit/462615/	http://take.lyft.com/friendswithtransit/
Explore partnerships with TNCs	Uber and Lyft are exploring new markets that include subsidized rides to/from transit access points, healthcare services, large employers, etc.	Coordinate with COTA, which is exploring partnership options	Prioritize shared ride model (UberPool, LyftLine), especially for late-shift workers or low-income people poorly served by existing transit service (see PSTA's TD Late Shift pilot)	http://www.bizjournals.com/columbus/news/2017/02/24/cota-could-partner-with-uber-lyft-to-help-close.html	http://www.masstransitmag.com/press_release/12244562/lyft-partners-with-alc-for-on-demand-transportation	http://www.metro-magazine.com/sustainability/news/720113/calif-s-smart-lyft-to-pilot-first-last-mile-partnership
Real-time transit information	Publish real-time COTA arrivals on digital displays at bus stops, major destinations	COTA already publishes GTFS feed through Transit App. Need to publish at digital displays at bus stops	Work with display screen vendors (e.g. Roadify, TransitScreen) to implement kiosks or displays showing real-time arrivals	http://www.citylab.com/commute/2016/12/a-smarter-way-to-visualize-zillions-of-travel-options/511322/	http://www.pressherald.com/2016/06/22/maine-voices-bus-information-at-a-glance-would-benefit-business-environment-health/	
Autonomous transit vehicles	Connected, electric, on-demand transit vehicles - part of Smart Columbus plan	Identify potential pilot partnerships and funding options	Use Rt. 33 pilot as bridge to seek "right fit" pilot partners/service-providers	http://www.firsttransit.com/about-us/news/news-details/2016/12/06/first-transit-announces-first-autonomous-passenger-shuttle-pilot-in-north-america-with-easymile	http://www.govtech.com/fs/Rochester-Minn-Pilots-Driverless-Shuttle-Program.html	http://meconstructionnews.com/21604/dutch-firm-wins-dubai-automated-bus-contract
Develop "next gen" paratransit strategies	Explore partnerships with TNCs as complement to existing COTA paratransit service, esp. non-ADA paratransit; investigate autonomous paratransit options	Complete a Peer Review to identify emerging suburban-community strategies and programs.	Identify "peer" communities for review.	http://news.wgbh.org/2016/09/19/politics-government/mbta-partners-uber-and-lyft-paratransit-ride-pilot-program		
Develop local COTA service options	Identify potential for "right fit" local-service options to expand COTA access	Focus on new, mixed-use destinations like Bridge Park	Initiate talks with COTA			

Explore options for consolidated shuttle/circulator service for hotels	Seek partnerships with local hotels (17 in Dublin) to develop service that could be transit shuttle for employees, and circulator service for guests to/from Bridge Park, Dublin Village	Discuss opportunities with Dublin Visitor's bureau	Include hotels in Transit Propensity mapping, based on combination of visitor and low-wage employee markets	http://www.westinannapolis.com/annapolis-circulator-trolley	http://baltimore.org/article/charm-city-circulator	http://www.ridedowntowner.com/cities/aspen/

Strategy	Details	Implementation Actions	First Steps	More Information		
Develop "Better Bike Corridors"	Focus on network links that support common A/B trips, and direct-route options.	Identify as priority locations for developing the "complete system", including via upgrades of any existing but inadequate facilities	Survey bike community about A/B network gaps, priority routes	http://www.thewashcycle.com/2016/02/dc-adds-new-protected-bicycle-lanes-to-long-range-plan.html		
Complete a "Low Stress" bicycle system	On roads with posted speed limits of more than 35 mph, provide protected bicycle infrastructure, such as cycle tracks, buffered bike lanes or parallel 10-foot wide shared use paths.	Create an expanded set of design standards or adopt National Association of City Transportation Officials Urban Bikeway Design Guide standards for bicycle crossings and facilities, including protected bike lanes, neighborways, and cycletracks	Convert sharrows to protected bike lanes where possible. Capitalize on resurfacing projects, especially on state-controlled facilities, to include full accommodation for bicycles.	http://nacto.org/publication/urban-bikeway-design-guide/cycle-tracks/		
	Designate a Bike Boulevard Network that provides redundancy with higher-speed-road segments for most common trips.	Identify route segments that provide reasonably direct routes to common destinations along low-speed, neighborhood streets.	Explore applicable best-practice program approaches	http://nacto.org/publication/urban-bikeway-design-guide/bicycle-boulevards/route-planning/	https://vimeo.com/16552771	
	Map distinct networks	Identify facility type specific to network segment-gaps		http://nacto.org/wp-content/uploads/gallery/bicycleboulevard_routeplanning_photos/madison.jpg		
	Make intersections safer and more comfortable for cyclists using a range of treatments suitable for the bike facility type, intersection size, and the adjacent street function and land use	Develop design standards for intersection facilities	Identify priority intersections	http://nacto.org/publication/urban-bikeway-design-guide/intersection-treatments/	Use the Pedestrian Intersection Safety Index to assist the City with evaluating its intersections for pedestrian safety	
Develop a plan for expanding end of trip facilities such as parking, changing rooms and showers, personal storage, and repair areas for capital and land development projects	Identify key locations for, and strategies to provide, more and more-suitable options	Identify internal "owner", as well as strategies for public and private sector contributions	Map current facilities.	http://www.bikeleague.org/sites/default/files/BFB_Queensland_End_of_trip_facilities_for_bicycle_riders.pdf		
Promote Cycling & Cycling Safety/Comfort		Engage Yay! Bikes	Identify companies, schools, and neighborhoods/districts	http://www.bizjournals.com/columbus/news/2015/06/22/morpc-yay-bikes-launch-ride-buddy-to-get-more.html		
	Build new markets for cycling through information, events,	Develop Bike Buddy Program	Pilot as part of International Walk to School day activities	https://chicagobikebuddies.com/		

	support and marketing that broaden the relevance of this active-mode travel option.	Celebrate the opening of new bicycle projects with a bicycle-themed community celebration or social ride, to introduce all road users to the improvement	Identifiy City lead and outside partners	https://bikeeastbay.org/ribboncuttings	http://www.longbeach.gov/press-releases/press-releases/public-invited-to-ribbon-cutting-for-protected-bike-lanes-along-artesia-boulevard/	
Explore Park & Bike opportunities at parks along regional bike network	Locations where parking can facilitate access to local and regional bike networks	Identify parking facilities near bike network entry points	Identify prioritiy opportunities and engage with parking facility owners	http://www.parkandpedalmap.org/#/map/		
Explore bike-share options	Bike-share is proving viable in more types of communities, as new operational and funding models emerge	Coordinate with COGO about expansion options. Explore conventional system designs and bike share on corporate campuses.	Coordinate with COGO about expansion options			
			Review peer case studies from suburban communities	https://mobilitylab.org/2016/01/21/bikeshare-in-the-suburbs/		
Explore e-bike opportunties and develop strategies	Identify barriers that e-bikes can address, including travel distances and times for common trips	Review current legislation and Best Practices with e-bikes		http://www.peopleforbikes.org/blog/entry/clearing-up-e-bike-legislation-in-the-u.s		
Put more bicycle facilities where the propensity to use them is greatest	Develop propensity analysis/maps, based on emerging methodologies	Research developing methodologies	Identify analysis partners: MORPC, CoGo, Yay! Bikes, etc.	http://www.pct.bike/	http://content.tfl.gov.uk/analysis-of-cycling-potential.pdf	http://www.caee.utexas.edu/prof/kockelman/public_html/TRB13_NMTSeattle.pdf
Increase school-specific programs to educate and encourage bicycling	Increase the share of students riding to school rather than being dropped off, to reduce traffic at school dropoff points and to spur physcial activyt/social engagement	Engage Yay! Bikes	Ensure schools accommodate bike parking needs, engage community stakeholders to ID schools with interest/opportunity	http://www.morpc.org/transportation/bicycle-pedestrian/walk-bike-to-school/index	http://franklintoncycleworks.org/bike-maintenance-classes	http://www.treehugger.com/cars/london-parents-will-get-fined-dropping-their-kids-school-car.html
Prioritize Non-Motorized Connectivity	Walking and cycling routes are shorter than motor vehicle routes for common A/B trips	Create shared-use, non-motorized paths where roadway connectivity is limited	Use Gap Map to identify where cut-throughs might be most valuable	https://www.itdp.org/wp-content/uploads/2014/03/TOD_Standard-v2.1.pdf	https://itspubs.ucdavis.edu/wp-content/themes/ucdavis/pubs/download_pdf.php?id=1665	
Use crash data and roadway conditions/characteristics to create a bicycle Stress map.	Create a "heat" map that identifies relative stress conditions for cycling. Overlay with exsiting bike network, and scenarios for a complete, low-street bike network to prioritize improvement opportunities.	Work with GIS staff to develop a design plan	ID necessary GIS data.	https://www.wired.com/2017/04/handy-stress-map-helps-cyclists-avoid-scariest-streets/		

Strategy	Details	Implementation Actions	First Steps	More Information		
Increase Walking as school-commute choice	Address both safe-routes needs, and promotional opportunities	Develop Walking School Bus program	Pilot as part of International Walk to School day activities	http://www.walkbiketoschool.org/	http://www.walkingschoolbus.org/	
		Explore formal Safe Routes program options, including funding sources	Outreach to City of Columbus for guidance	http://www.saferoutesinfo.org/	http://www.dot.state.oh.us/Divisions/Planning/ProgramManagement/HighwaySafety/ActiveTransportation/Pages/Develop_SRTS_Program.aspx	
Prioritize Non-Motorized Connectivity	Walking and cycling routes are shorter than motor vehicle routes for common A/B trips	Create shared-use, non-motorized paths where roadway connectivity is limited	Use Gap Map to identify where cut-throughs might be most valuable	https://www.itdp.org/wp-content/uploads/2014/03/TOD_Standard-v2.1.pdf	https://itspubs.ucdavis.edu/wp-content/themes/ucdavis/pubs/download_pdf.php?id=1665	http://www.vox.com/2016/8/4/12342806/barcelona-superblocks
Complete pedestrian network	Increase sidewalk connectivity and continuity	Identify gaps in the Gap Map	Use Gap Map to identify prioritity gap-closures	http://nacto.org/publication/urban-street-design-guide/street-design-elements/sidewalks/	http://nacto.org/publication/urban-street-design-guide/intersection-design-elements/	
Improve pedestrian crossing conditions	Require new traffic signal installation to include ADA best practices	Begin installing audible and vibrotactile pedestrian signals.	Identify costs for installing new signal systems			
	Use the Pedestrian Intersection Safety Index to assist the City with evaluating its intersections for pedestrian safety	Develop citywide standards for safe pedestrian crossings	Identify unsafe intersections in the Gap Map	https://www.fhwa.dot.gov/publications/research/safety/pedbike/06125/06125.pdf		
	Require new traffic signal installation to include Pedestrian-First traffic-signal strategies	Give crossing pedestrians a head start	Identify costs for replacing "push button" actuation systems, and re-sequencing signals to provide Leading Pedestrian Intervals	http://guide.saferoutesinfo.org/engineering/traffic_signals.cfm		
		Prohibit right turns during Red traffic signals in more areas of Dublin	Identify any legal barriers to broader restrictions	http://guide.saferoutesinfo.org/engineering/traffic_signals.cfm		
	Reduce excessive signal lenghts	Utilize the lowest practical signal cycle length in areas with significant pedestrian activity	Short cycle lengths of 60–90 seconds are ideal for urban areas.	http://nacto.org/publication/urban-street-design-guide/intersection-design-elements/traffic-signals/signal-cycle-lengths/		
Include focus on pedestrian networks, including intersections in Street Design guidelines	Include in a new Street Design Manual or adopt NACTO guide	Coordinate with design-guide development/adoption process to ensure adequate attention to pedestrian networks	Identify Gaps between Thoroughfare Plan, leading Street Design Manuals and the NACTO guide	https://issuu.com/bostontransportationdepartment/docs/chap4_all	https://issuu.com/bostontransportationdepartment/docs/chap2_all	

Strategy	Details	Implementation Actions	First Steps	More Information		
Develop/Adopt Street Design Manual	Expand upon the Thoroughfare Plan to develop a design guide for the City's streets, including urban-appropriate street classifications for walkable, mixed-use districts	Commission development of Dublin Street Design Guide/Manual	Identify Gaps between Thoroughfare Plan and leading Street Design Manuals	http://www.a2dda.org/wp-content/uploads/A2DDA_StreetDesignManual_03_StreetFramework2.pdf	http://www.a2dda.org/wp-content/uploads/A2DDA_StreetPoliciesBestPractices.pdf	
		Adopt the NACTO Urban Street Design Guide as the Dublin Standard	Identify Gaps between Thoroughfare Plan and the NACTO Urban Street Design Guide	http://nacto.org/publication/urban-street-design-guide/		
Expand Car Share to Dublin	Attract/retain car share operator in Dublin, particularly for Dublin Village and Bridge Park districts	Allocate on-street parking or municipal off-street parking spaces to car-share operators. Formalize permitting process/curbside regulations for these spaces.	Contact area operators for RFQ (e.g. Zipcar, Car2Go) and potential operators (Uhaul Carshare, Maven)	https://www.metro.net/projects/tod-toolkit/car-share-programs/	http://policies.sharedusemobilitycenter.org/#/policies?Topic=Carshare	
Explore Smart Streets opportunities	Use smart grid technology to adaptively manage and monitor key aspects of the built environment such as street lights, parking space availability, or street cleaning	Coordinate with Smart Columbus and Rt 33 projects for synergistic opportunities	Identify priority Smart Streets elements/benefits	http://www.theverge.com/2016/10/18/13316500/sidewalk-labs-google-alphabet-smart-city-transportation	https://www.nytimes.com/2016/03/18/technology/cities-to-untangle-traffic-snarls-with-help-from-alphabet-unit.html?_r=1	
Manage parking to reduce downtown demand and better match supply to usage patterns, and emerging-mobility opportunties to reduce car dependency	Manage off-street parking to avoid subsidizing auto travel as cost-effective mobility options emerge, diversify, and influence travel choice.	When parking capacities become constrained, seek management opportunities to forestall subsidized supply-expansion projects.	Develop Parking Management Plan to outline path toward a proactive management program	https://www.stpaul.gov/sites/default/files/Media%20Root/Planning%20%26%20Economic%20Development/Saint%20Paul_Dtown%20Parking%20Mgmt_Final%20Summary.pdf	http://www.vtpi.org/park_man.pdf	
Align zoning policy with best practices for emerging walkable, mixed-use urban centers.	New zoning strategies can reduce overprovision of private parking, facilitate a public parking system that is more land-efficient and broadly beneficial in walkable districts.	Use Parking Study to develop zoning strategies for appropriate districts	Coordinate with Parking Study to ensure recommendations align with Mobility Study vision and objectives	http://aspenpublicradio.org/post/aspen-looks-mobility-not-parking-way-future#stream/0	http://urbandesignla.com/resources/docs/BikeableDesignToolkit/hi/BikeableDesignToolkit.pdf	
Price parking to reduce traffic created by lack of available curbside parking	In core areas of Dublin Village and Bridge Park, price parking as soon as parking occupancies begin to regularly approach 85% at multiple periods of the day.	Use space availability as the performance metric for performance-based parking pricing. Demand-based parking pricing	Coordinate with Parking Study to ensure recommendations align with Mobility Study vision and objectives	http://www.shoupdogg.com/	https://www.strongtowns.org/journal/2015/11/22/podcast-donald-shoup	
Establish a formal Complete Streets policy	Use City of Columbus CS policy as a guide	Seek formal adoption	Develop proposed language	https://www.smartgrowthamerica.org/app/legacy/documents/cs-local-policy-workbook.pdf		

Identify complete-streets strategies for neighborhoods	Promote safe travel for those walking and cycling in residential areas	Develop Neighborways strategy to slow/reduce traffic via vertical elements (especially trees) or surface treatments (chicanes, neckdowns, and other devices that narrow the width of the roadway and reduce speeds).		https://arlingtonva.s3.dualstack.us-east-1.amazonaws.com/wp-content/uploads/sites/31/2016/03/Approved-Program-Guide-Jan-28-2016.pdf	https://arlingtonva.s3.dualstack.us-east-1.amazonaws.com/wp-content/uploads/sites/31/2016/03/Toolbox-measures-for-final-Periodic-Report.pdf	https://arlingtonva.s3.dualstack.us-east-1.amazonaws.com/wp-content/uploads/sites/31/2016/12/Neigborhood-Complete-Streets-Project-Ranking-Guidelines-adopted-Jan-28-2016.pdf
Formalize an Autonomous Vehicle policy	Prepare for, and manage opportunities presented by, emergence of "self-driving" vehicles.			http://www.ncsl.org/research/transportation/autonomous-vehicles-self-driving-vehicles-enacted-legislation.aspx	http://www.post-gazette.com/business/tech-news/2017/03/13/Pittsburgh-self-driving-cars-New-study-urges-city-leaders-to-plan-for-driverless-future-or-face-major-risks/stories/201703130063	http://www.telegraph.co.uk/news/2017/02/09/driverless-car-owners-will-need-two-in-one-insurance-policies/
Promote active transportation by reducing traffic speeds	Reduce default speed to 25 MPH, 20 MPH on neighborhood streets	Reduce excessive land widths		http://www.nyc.gov/html/visionzero/pdf/library/25-MPH-FAQ.pdf	http://www.citylab.com/design/2014/10/why-12-foot-traffic-lanes-are-disastrous-for-safety-and-must-be-replaced-now/381117/	
Develop maximum block size and minimum street connectivity standards in new development	Use the Bridge Park district and other ongoing redevelopment projects to set a template for subsequent growth centers			https://www.cnu.org/sites/default/files/knightcnu19finalpaper_0.pdf	http://postgreenhomes.com/urban-planning-101-block-size/	
Facilitate shared parking among Activity Center property owners.	Broker shared parking arrangements.	Work with activity-center business owners to inventory private parking capacities, identify	The City can help initiate negotiations, provide an independent perspective on	https://parkomaha.com/about/park-omaha-partners/	https://www.itdp.org/wp-content/uploads/2014/12/Shared-Parking_ITDP.pdf	
	Consolidate private facilities into shared facilities.	Seek opportunities to convert private lots to public, City-managed resources, in return for improving and maintaining these facilities.	Buy-in among lot owners will typically require trust in the “big picture” benefit of this, based on the City’s capacity to effectively manage parking in the area to mutual benefit.			
	Incorporate pay-by-phone technology	Engage owners of restricted parking facilities about monetizing their parking spaces when they are not in use, by coordinating with the City’s pay-by phone vendor (once one is in place).	The vendor and the facility owner can work out details such as shared-parking schedules and rates. Typically, the vendor will install its standard signage, consistent with what is used for public parking in the district, and distribute revenue to the facility owner in accordance with their agreement.	https://parkomaha.com/about/parking-app/		

Strategy	Details	Implementation Actions	First Steps	More Information	
Identify "Infill Nodes" where new walkable, mixed-use, higher density development is desired	Identifying where such growth is sought can clarify that most of Dublin is not targeted for transformative land-use change	Map these redevelopment nodes, based on current land use characteristics, propensity for redevelopment, and neighborhood and regional access	Update Land Use and Parking Requirement zoning codes		
Update development code, as necessary, to align with growth, mobility, and sustainability goals	Develop citywide policies for multimodal access to new developments			http://urbandesignla.com/resources/docs/BikeableDesignToolkit/hi/BikeableDesignToolkit.pdf	
	Encourage infill development through zoning policies	Updated approaches to design review, site planning, parking requirements		http://aspenpublicradio.org/post/aspen-looks-mobility-not-parking-way-future#stream/0	
	Identify suitable affordable housing strategies				
	Focus growth in denser, mixed-use centers like Bridge Park				
Develop public-realm plans	Develop a Parks and Public Realm plan to prioritize placemaking	Develop a Parks and Public Realm plan to prioritize placemaking		http://www1.toronto.ca/wps/portal/contentonly?vgnextoid=43b25f06ea6bb410VgnVCM10000071d60f89RCRD	
	Develop a series of neighborhood-specific public realm plans	Develop a series of neighborhood-specific public realm plans		sf-planning.org/urban-design-city-design-group	
Develop live-work housing strategies	Explore options for "workforce" housing development in locations that are walkable/bikable to office parks and downtown or other activity centers	Identify key employee markets likely to respond to affordable housing options.		https://www-static.bouldercolorado.gov/docs/Middle_Income_Housing_Strategy_October_2016-1-201611221422.pdf	
Develop maximum block size and minimum street connectivity standards in new development	Use the Bridge Park district and other ongoing redevelopment projects to set a template for subsequent growth centers			https://www.cnu.org/sites/default/files/knightcnu19finalpaper_0.pdf	http://postgreenhomes.com/urban-planning-101-block-size/
Walkable Design Standards					